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ENVIRONMENTAL ASSESSMENT BOARD

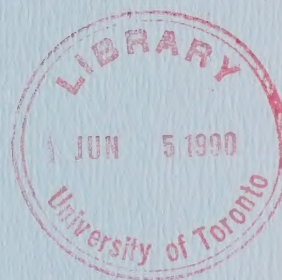
VOLUME: 202

DATE: Tuesday, May 15, 1990

BEFORE:

A. KOVEN, Chairman

E. MARTEL, Member



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HEARING ON THE PROPOSAL BY THE MINISTRY OF NATURAL
RESOURCES FOR A CLASS ENVIRONMENTAL ASSESSMENT FOR
TIMBER MANAGEMENT ON CROWN LANDS IN ONTARIO

IN THE MATTER of the Environmental
Assessment Act, R.S.O. 1980, c.140;

- and -

IN THE MATTER of the Class Environmental
Assessment for Timber Management on Crown
Lands in Ontario;

- and -

IN THE MATTER OF a Notice by the
Honourable Jim Bradley, Minister of the
Environment, requiring the Environmental
Assessment Board to hold a hearing with
respect to a Class Environmental
Assessment (No. NR-AA-30) of an
undertaking by the Ministry of Natural
Resources for the activity of timber
management on Crown Lands in Ontario.

Hearing held at the Offices of the Ontario
Highway Transport Commission, Britannica
Building, 151 Bloor Street West, 10th Floor,
Toronto, Ontario, on Tuesday, May 15th, 1990,
commencing at 8:30 a.m.

VOLUME 202

BEFORE:

MRS. ANNE KOVEN
MR. ELIE MARTEL

Chairman
Member



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I N D E X O F P R O C E E D I N G S

<u>Witness:</u>	<u>Page No.</u>
<u>JAMES WADDELL,</u> <u>MALCOLM SQUIRES,</u> <u>MURRAY FERGUSON,</u> <u>JAMES RODERICK GEMMELL,</u> <u>PETER MITCHELL MURRAY,</u> <u>BRIAN NICKS, Resumed</u>	35801
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1158	MOE Interrogatory Question Nos. 5(a), 7(a), 7(b), 8, 10(a), 15, 17(b), 24, and 25 re OFIA/OLMA Panel No. 4.	35851
1159	MOE Interrogatory Question Nos. 1, 2, 3, 4, 7 through 10, 12, 13 and 14 re OFIA/OLMA Panel No. 8.	35851
1160	Excerpt of MOE draft terms and conditions re term and condition No. 16.	35951

1 ---Upon commencing at 8:30 a.m.

2 MADAM CHAIR: Please be seated. Good
3 morning.

4 I apologize for the confusion yesterday.
5 I was called out of town for a funeral, and I
6 understand there were lots of problems in getting
7 messages to people and so forth.

8 And welcome to our new office. I think
9 what is going to happen is that more tables are going
10 to be put where the benches are, so I think over time
11 it will be a little more comfortable.

12 Anyway, we are starting with you this
13 morning, Mr. Freidin?

14 MR. FREIDIN: Yes. I am going to try
15 doing this without the mike because it's over here and
16 I want to speak to the witnesses over there. So if
17 anybody has trouble hearing me, speak up. Okay.

18 JAMES WADDELL,
19 MALCOLM SQUIRES,
20 MURRAY FERGUSON,
21 JAMES RODERICK GEMMELL,
PETER MITCHELL MURRAY,
BRIAN NICKS, Resumed

22 CONTINUED CROSS-EXAMINATION BY MR. FREIDIN:

23 Q. I would like to start off again with
24 Mr. Waddell and I want to ask some questions regarding
25 the evidence about a balanced program. And if I could,

1 mr. Waddell, could you turn to page 145 of the witness
2 statement which is Exhibit 1137.

3 MADAM CHAIR: That is page 145, Mr.
4 Freidin?

5 MR. FREIDIN: 145, yes.

6 MR. WADDELL: Yes, I have it.

7 MR. FREIDIN: Q. And I would like to
8 direct your attention to the second full paragraph
9 where it says in the first sentence:

10 "The Industry understands and accepts
11 that funding constraints influence the
12 decision to introduce the cap."

13 And we are talking here about what has
14 been referred to as the cap on the production of
15 seedlings.

16 And I take it from that sentence, Mr.
17 Waddell, that it is recognized - to repeat a point that
18 I think we discussed last time - that where in fact
19 there is a limitation on funding, one has to make a
20 reasoned choice as to what regeneration method one uses
21 in any particular case?

22 MR. WADDELL: A. Yes, that's a fair
23 statement.

24 Q. Now, I read the rest of that
25 paragraph, or it can be read as suggesting that there

1 was no concern by the people who put the limit on the
2 production of seedlings about the possible effect on
3 wood supply.

4 And was it your intention to suggest that
5 there was no concern or understanding that there might
6 be an effect on wood supply as a result of a production
7 on seedlings?

8 MR. WADDELL: A. No, certainly not.
9 That would be irresponsible of us to suggest that, Mr.
10 Freidin. Certainly Ministry managers would be
11 concerned about the effect that a cap would have on
12 future wood supply.

13 Q. When you gave your evidence about
14 this particular paragraph you, I think, described the
15 phrase administrative in nature as meaning -- and I am
16 quoting:

17 "We don't feel that it was related to the
18 biological need of the forest in that it
19 wasn't tied into a level of planting the
20 forest required."

21 And did I get your evidence correctly?

22 A. I think that's a fair assessment of
23 what I said.

24 Q. I take from that, Mr. Waddell, that
25 what you were saying was that when the cap was

1 introduced there was no quantitative analysis as to
2 exactly what the effect would be on any particular
3 piece of geography, and that was the reason that you
4 described there being an administrative reason or the
5 cap being administrative in nature?

6 A. I am not sure I understood your first
7 sentence, Mr. Freidin.

8 Q. All right. Well, let me go back.
9 Without trying to put words in your mouth, if it wasn't
10 administrative in nature, if you are not suggesting
11 that there was no concern about wood supply and you are
12 not suggesting that people who said it didn't believe
13 it would have an effect on wood supply, perhaps you
14 could explain to me what you meant by that phrase, that
15 you don't believe the cap was related to the biological
16 need of the forest?

17 A. Yes. Our concern was that in the
18 opinion of the Industry the cap had been imposed at an
19 arbitrary level and that level had not been
20 pre-determined by a bottoms-up analysis, if I can use
21 that term, of what the individual management units,
22 Crown and FMA, felt that they required to carry out the
23 renewal objectives on their particular unit.

24 In other words, there had not been that
25 kind of a collective analysis made, in our opinion, at

1 which the cap would be pegged and that is why we called
2 it an administrative cap; it wasn't related to the
3 biological planting requirements of the individual
4 units.

5 Q. All right. But we agree that the cap
6 was introduced because of financial constraints?

7 A. That is our understanding.

8 Q. And I understand your evidence also
9 to be that the new timber production policy, you see
10 that as involving a bottom-up analysis so that any
11 concern that you had about the manner in which this
12 stock cap was in fact set would be adequately addressed
13 through the development of the new timber production
14 policy?

15 A. Very definitely, and I might add that
16 Dr. Baskerville recommended the same approach, a
17 bottom-up analysis, starting with the individual
18 management units, and we certainly support that
19 approach.

20 Q. And in terms of the cap on the
21 production of seedlings, although the cap may not have
22 been developed on a quantitative bottom-up analysis
23 when it was first imposed, can we agree that the
24 determination as to what effect that might have on any
25 management unit would get sort of flushed out during

1 the timber management planning process?

2 A. I would think so.

3 Q. And would you agree that whether it
4 takes place frequently or not, that the timber
5 management planning process is flexible enough to
6 result in the reallocation of stock from one part of a
7 region to another if the managers believe that it is
8 required more in one area than another for long-term
9 wood supply?

10 A. Well, the opportunity is certainly
11 there.

12 Q. Thank you. Now, all of you gentlemen
13 supported the lower cost regeneration clause which is
14 in your FMA agreements.

15 And would you agree with me, Mr. Waddell,
16 that that clause is one way of encouraging or
17 increasing the level of natural regeneration or the use
18 of seeding as opposed to planting in appropriate
19 circumstances?

20 A. There is no question about that.

21 Q. But that clause contemplates natural
22 regeneration being a lesser cost treatment not just
23 seeding being a lesser cost regeneration over planting?

24 A. Yes, that's correct.

25 Q. So that if you use a natural

1 regeneration method as opposed to planting where
2 planting would be normal, that if you fail in terms of
3 meeting your objective in that case, then that clause
4 kicks in?

5 A. That's my understanding.

6 Q. And with that lower cost regeneration
7 clause, hypothetically if it costs \$200 per hectare to
8 plant and it costs 50 - I don't know whether these
9 numbers are even close - 50 to seed but seeding fails
10 and then Industry goes back in under that clause and
11 plants, that Industry gets paid \$150 for the additional
12 work?

13 A. Yes, that's correct.

14 Q. When in fact it may have cost
15 Industry, in that example, \$250?

16 A. That's correct again.

17 Q. So I suppose we are making a list of
18 where Industry might contribute towards regeneration
19 that might be -- someone could argue that that might be
20 an example?

21 A. Definitely.

22 Q. Now, one last issue that I would like
23 to ask about on this lesser cost regeneration is one
24 which -- what I have characterized as an apparent
25 contradiction. It might not be, but I want to be

1 clear.

2 All of you were asked I think by Ms.
3 Swenarchuk as to whether in fact you had been able to
4 carry out the silvicultural program that you wanted,
5 and I think maybe she asked specifically: Did you
6 receive enough stock, and all of you except Mr. Squires
7 indicated since the exception of the program, yes, you
8 indeed had received the seedlings and the stock that
9 you desired.

10 On the other hand, there has been
11 evidence where you have said that you are concerned
12 about the stock cap and that you believe that enough --
13 you know, there is a detrimental effect on wood supply.
14 And could you explain the apparent contradiction
15 between those two pieces of evidence?

16 A. That's a fair question and I am not
17 sure, Mr. Freidin, that I can explain the difference,
18 except in our own situation the company has not faced a
19 shortfall in nursery stock on our own plantings.

20 For example, we did have an occasion on
21 the third-party operations where the third party was
22 short of nursery stock, however, through, shall we say
23 negotiations with the Ministry out of Thunder Bay, the
24 operator was able to secure adequate stock. And that
25 is the only time that we have faced a problem with the

1 cap.

2 If the cap was intended to help the
3 balance, it has been successful in our case because we
4 have been forced to re-evaluate our program and based
5 on our experience to date we were able to go to some
6 additional aerial seeding and that -- because of our
7 success rate, that has proven quite acceptable to us,
8 and so what appeared to be a problem with the nursery
9 cap - in our particular case, that's all I can speak
10 for - what appeared to be an initial problem, we have
11 been able to work around.

12 Q. All right. And do I take it,
13 gentlemen, that the rest of you when you gave your
14 evidence then as to whether there was an experience --
15 well, you were having any problem with the cap, that
16 you were speaking from your own company's personal
17 experience and not making a comment generally on behalf
18 the Industry?

19 MR. GEMMELL: A. That's correct.

20 MR. FERGUSON: A. Correct.

21 Q. So the witnesses indicate they were
22 all speaking from their own company's personal
23 experience.

24 So that in fact if there is a problem
25 with a reduction in the amount of seedlings being

1 produced in comparison to projected demand for
2 seedlings, it is a concern that will affect other
3 companies than the companies that you gentlemen
4 represent, at least at the present time.

5 MR. WADDELL: A. At the moment it
6 appears to be that way, yes.

7 MS. CRONK: I rise, Madam Chair. Mr.
8 Freidin did acknowledge that Mr. Squires' evidence was
9 different than the others and he should, in respect of
10 the last sentence, acknowledge it again.

11 MR. FREIDIN: Yes. Yes, that is fine.

12 Q. Mr. Waddell, you are the person who
13 is dealing with the proposed terms and conditions?

14 MR. WADDELL: A. I am.

15 Q. Okay. You gave some evidence, and
16 unfortunately I don't have the transcript, you referred
17 to a series of terms and conditions proposed by MNR;
18 they were: 8, 11, 12, 13, 32, 41, and 53.

19 And just so that we might be clear as to
20 what those are, Item 8 deals with the report of past
21 forest operations; No. 11 deals with silvicultural
22 groundrules and what they should include a description
23 of; No. 12 deals with a term or condition regarding the
24 recording of planned versus actual activities; 13 deals
25 with the area of concern planning process; 32 deals

1 with the annual work schedule; 41 deals with reviewing
2 manuals, guidelines, amalgamating them and that sort of
3 thing; and 53 deals with annual reports for each forest
4 management unit.

5 Now, I understood you to say in relation
6 to those terms and conditions that the Industry support
7 them but you added a qualifier which I didn't get down
8 accurately, but my notes said:

9 "Based on MNR providing procedures to
10 ensure renewal planning and
11 implementation is done."

12 Now, that might not be accurate, and what
13 I am concerned about is I want to have an accurate
14 understanding of what the qualifier was, if indeed
15 there was qualifier, on Industry's support for those
16 terms and conditions.

17 MR. WADDELL: A. I'm sorry, Mr. Freidin,
18 I don't remember that qualifier at all.

19 What I think my evidence was, at least
20 what I certainly meant to say - and I am reading from
21 my notes here now - is that the Industry generally
22 supports those terms and conditions that you mentioned
23 on the basis that we understand them to provide for
24 procedures and mechanisms to ensure that renewal
25 activities are properly considered both at the planning

1 stage and after implementation for the purposes of
2 ensuring adequate performance.

3 The one concern we had is with condition
4 No. 11 which we expressed our concern earlier on in my
5 evidence presentation, and that was that, in our
6 opinion, condition 11 could be interpreted as it's
7 presently written in a manner that would restrict the
8 unit manager's ability to make decisions.

9 It appears to indicate to us that the
10 logging method must be, and the silvicultural system
11 must be tied down very tightly before -- in the
12 groundrules, and that's what our concern was. The rest
13 of the conditions we were in complete agreement with.
14 So if I may take --

15 Q. All right. I thank you for that
16 clarification.

17 A. Sorry.

18 Q. And when you say, concern about the
19 silvicultural system and logging method being tied down
20 tightly, can you perhaps just expand on what you mean
21 by that?

22 A. Yes. If you give me a moment,
23 please, to find condition No. 11.

24 Excuse me. The Ministry condition No. 11
25 requires that the silvicultural groundrules contain a

1 description by site type of the silvicultural system
2 and the logging method to be used, and we interpret
3 that as potentially being very restrictive,
4 particularly the part about the logging method, and
5 maybe we don't understand what you mean by logging
6 method.

7 Q. All right. If logging method is a
8 term used to refer to full-tree, tree-length or
9 shortwood harvesting, and the intent was that the
10 silvicultural groundrule could identify options for
11 that but did not require the selection and
12 identification of only one logging method, would that
13 allay your concern?

14 A. I am not sure that it would entirely.
15 I guess whether we log shortwood, tree-length or
16 full-tree sometimes is a decision that must be made
17 almost on site, and sometimes due to lack of equipment
18 or availability of equipment your logging method may
19 change overnight on a particular camp, and we see that
20 as being restrictive of our flexibility in their
21 ability to make those decisions as required.

22 Q. Your concern then would be, as I
23 understand it then, if you had to change the logging
24 method that quickly and you didn't have sort of the
25 full range of options in your silvicultural

1 groundrules, that you might be into an amendment
2 situation--

3 A. That's correct.

4 Q. --which would-be time consuming and
5 affect the implementation of operations?

6 A. That's correct.

7 Q. Okay.

8 A. And I suppose under the term
9 silvicultural system, if we are talking there about the
10 clearcut system of shelterwood, that sort of thing, we
11 have no problem with that, but we do with the way the
12 logging method appears to be -- appears to indicate
13 there a degree of rigidity that would be bothersome to
14 us.

15 Q. I think through your earlier evidence
16 you indicated that you would be concerned if you had to
17 start specifying the actual equipment that you were
18 going to use in advance?

19 A. Yes.

20 Q. All right. Another set of terms and
21 conditions that you dealt with, terms and conditions
22 17, 49 and 56: 17 deals with compliance monitoring in
23 areas of concern; 49 deals with again compliance
24 monitoring, but in this case through contract
25 administration I believe and the like; and 56 deals

1 with the subject matter of operational audits.

2 My notes indicate that you said:

3 "Industry supports these terms and
4 conditions as we understand them."

5 And perhaps you could explain to me what
6 you meant by, as we understand them, so I can determine
7 whether we have a difference of opinion or not?

8 A. Those were 17, 43 and 56?

9 Q. 17, 49 and 56.

10 A. 49. Give me a moment, please. Our
11 understanding of 17, "Ministry shall outline a
12 compliance monitoring program of inspections of
13 operations in areas of concern", is that the Ministry
14 themselves will outline that program and carry out the
15 work.

16 That is our understanding of that term
17 and condition and, based on that, we would support it.
18 We feel it's absolutely necessary that an independent
19 body such as MNR should do the actual compliance
20 monitoring and not ask the Industry to do it.

21 Q. All right. And 49?

22 A. Again, I think our only concern was
23 that the Ministry would undertake the area inspections
24 and the reporting.

25 Q. Okay. And 56.

1 A. Exactly the same situation. We feel
2 it's important to maintain the independent audit
3 aspect, and if that is the Ministry's understanding and
4 the intent, then Industry supports those three terms
5 and conditions.

6 Q. Okay, thank you.

7 A. I might add, if I may, sir, that a
8 further part of our understanding is that those three
9 terms and conditions would apply not only to FMAs but
10 to CMUs as well; in other words, all management units
11 across the province would be subject to the same degree
12 of audit.

13 Q. Yes. Okay, thank you. Mr. Squires,
14 Mrs. Koven asked -- it was a discussion about nurseries
15 and how old seedlings were when you planted them.

16 MR. SQUIRES: A. Yes.

17 Q. And she asked whether the nurseries
18 would have more flexibility if you could store your
19 seedlings, and you said yes.

20 And perhaps you would expand on that. I
21 am not too sure exactly what that conversation was all
22 about and, therefore, what that answer meant.

23 A. I can't recall the initial question
24 right now. I was responding to what I thought was a
25 question relative to the flexibility that would be

1 offered by storing the tree seedlings, for example, in
2 a cold storage area. Of course, there is also the
3 option of storing in a shade area, so maybe I limited
4 unnecessarily in my mind by thinking of one storage
5 area, but the fact that storage does enable flexibility
6 throughout the planting operation.

7 Q. Flexibility in the sense that...?

8 A. Particularly in time, time that we
9 would receive the seedlings. Seedlings are held in a
10 state of dormancy, particularly in cold storage, so
11 that it takes some of the pressure off the field to get
12 the trees planted immediately in the early spring.

13 Q. And the comment you just made about,
14 could also be a shade area. When you use the term
15 nursery, you drive down the road and you see a place
16 where they are growing trees for planting, some are
17 inside in a greenhouse; some are outside growing
18 outside.

19 Now, would you make distinction between
20 those two; is one part the nursery and one part
21 something else?

22 A. No, I include both as nursery.

23 Q. Mr. Murray, your counsel asked you
24 near the end of the direct examination whether harvest
25 in tolerant hardwoods should be restricted to

1 shelterwood or selection cuts; you said no.

2 MR. MURRAY: A. That's correct.

3 Q. And in answering the question you
4 also said, and I quote:

5 "There are stands where you won't meet
6 the criteria for either of those
7 systems and, therefore, the silvicultural
8 system of clearcut must be open to you."

9 A. That's correct, yes.

10 Q. Could you explain what those criteria
11 are which might not be met by some tolerant hardwood
12 stands?

13 A. Right. I mentioned in the
14 description of the silvicultural system, the uniform
15 and the selection system, that there were three
16 criteria.

17 One is, if you have a stand that has a
18 potential, it must have trees which have a future for a
19 selection system, they have a quality. There has to be
20 a range of diameters in the stand that will allow the
21 selection system to be used. And those basically are
22 the criteria which are applied.

23 If those criteria aren't in the stand; if
24 it is, for instance, a young stand of even-age that has
25 developed from past cutting or disturbance and the

1 quality is totally below the criteria of development in
2 a selection system, you would have to then have -- you
3 would have to have some other option if you were going
4 to manage that stand and bring it along to maturity,
5 and the option of clearcutting is the one that is
6 considered.

7 You would remove all the trees and create
8 a new stand either by a stand conversion or by coppice
9 or advance regeneration. Those could exist.

10 Q. Yes. And are you aware of any
11 examples where the clearcut system has been used in
12 hardwood stands because the stand has not met those
13 criteria?

14 A. To the best my knowledge it has been
15 used in the Blind River District area which is an area
16 where the maple is on a fringe of its biological range,
17 the quality is lower. They have used a clearcutting
18 system there in the tolerant hardwood.

19 Q. Okay. Mr. Waddell, could you turn to
20 Exhibit 68 which is the FMA review?

21 A. The first five years?

22 Q. The first five years, at page 65.
23 Actually if people don't have it, it may not be
24 absolutely necessary. I say that, because I see that I
25 don't have mine, but we should all be at the same

1 disadvantage.

2 MS. CRONK: Well, go ahead, because I
3 have mine.

4 MR. FREIDIN: I was just given a copy
5 unfortunately.

6 MADAM CHAIR: Mr. Freidin, is that page
7 55?

8 MR. FREIDIN: Page 65.

9 MADAM CHAIR: 65.

10 MR. FREIDIN: Q. Now, Mr. Waddell, this
11 is a matter that has been dealt with I believe a number
12 of times in the past, it continues to get raised, and I
13 feel compelled to deal with it every time it gets
14 raised, and so I will do so again. m.

15 You were cross-examined by Ms. Swenarchuk
16 in relation to the maximum allowable depletion as
17 reported in Table No. 2. It was suggested to you that
18 because the amount of the maximum allowable depletion
19 is not being harvested at the present time that somehow
20 there was lots of wood around and you shouldn't be
21 concerned about wood supply in the future.

22 Do you remember the proposition?

23 MR. WADDELL: A. Yes, I do.

24 Q. And you indicated that that is an
25 improper assumption to make; just because you are not

1 harvesting all the MAD today does not mean that you
2 shouldn't be having an active regeneration program or
3 you don't need the land base for forestry purposes
4 tomorrow.

5 And perhaps you could explain that
6 answer?

7 A. The MAD of course is based on what's
8 on the forest today and it represents the state of the
9 forest at the time of the actual five-year plan.

10 What we are regenerating for today and
11 what our renewal program is all about is what we -- in
12 our case with jack pine primarily, what we hope to have
13 on the forest in 60 -- 50, 55, 60, 65 years time.

14 So the two are totally -- well, not
15 totally, but they are rather distinct. If we don't
16 carry out an active and successful regeneration program
17 today, then our MAD for the future will reflect that
18 and will be correspondingly low.

19 So that even though in the particular
20 five-year period, 1980-85, our depletion or our actual
21 harvest was substantially below what we were permitted
22 to take, that has no bearing on what we must regenerate
23 on the land today to have a future harvest cut in 60
24 years time.

25 And again I would like to emphasize on

1 those figures as I did in the previous
2 cross-examination that, for example, in the Upper
3 Spanish it shows a maximum allowable depletion of
4 58,176 hectares of which our actual harvest was only
5 11,460 hectares or roughly one fifth; however, the
6 maximum allowable is all working groups: poplar,
7 birch, spruce, other hardwoods, other conifer, whereas
8 our actual harvest is confined essentially to -- it's
9 primarily in jack pine with some spruce and some
10 poplar, so that it is really much closer to the maximum
11 depletion than it appears in these figures.

12 And also again to try to explain why
13 those figures are so low, our pulp mill at Espanola was
14 going through a major expansion program, we anticipated
15 that it would take wood sooner than it did, and also
16 our saw mill at Nairn was in the same situation. Those
17 mills came fully on stream by 84/85 and our fifth-year
18 review, which is starting next month for the period
19 1985-1990 will look significantly different than this
20 because our cutting for both the Upper and Lower for
21 the last several years has been bumping the maximum
22 allowable depletion.

23 Q. Let's take the hypothetical situation
24 where we are talking about just one working group, we
25 can use jack pine which is one which is desirable to

1 your company. Can we agree that the maximum allowable
2 depletion -- in any five-year period the maximum
3 allowable depletion will be higher when you have an
4 overmature forest in comparison to a very young forest?

5 A. Yes, certainly. And that is the
6 situation that we are in at E.B. Eddy, we have a
7 preponderance of overmature wood, we are on the
8 accelerated harvest at the moment and; therefore, our
9 allowable cut is higher now than it will be in 20 years
10 time.

11 Q. So that you can anticipate that as
12 you move from an overmature forest to a more normalized
13 forest, if I can use that terminology, your maximum
14 allowable depletion will come down?

15 A. That's correct.

16 Q. If one wanted to remove certain land
17 area from your MAD land base for any particular reason,
18 one would have to consider, or that could also have an
19 effect on the maximum allowable depletion that would be
20 available in the future?

21 A. Very definitely would.

22 Q. So that if anyone was going to
23 consider whether for some reason or another there
24 should be a reduction in your land base, that land
25 should be made available for purposes excluding

1 forestry, they would have to take into account not only
2 the fact that your MAD was going to go down in the
3 future just because of the move to a more normal
4 forest, they would also have to take into account that
5 the reduction, or the taking away of that land base
6 could also reduce the maximum allowable depletion as
7 well?

8 A. Yes, that's quite correct.

9 Q. Mr. Nicks, Mr. Ferguson answered a
10 few questions or gave a little explanation of tree
11 improvement. I think he said he wasn't an expert and
12 sort of said he could only go so far.

13 I understand that you have had experience
14 in the tree improvement program.

15 MR. NICKS: A. Yes, I have.

16 Q. And you gave some evidence about
17 genetics the other day, but I am just wondering whether
18 you could briefly indicate to the Board what you
19 believe the benefits or the type of benefits the tree
20 improvement program is designed to generate?

21 A. Okay. As the Board is aware I am
22 sure there are tree improvement programs across the
23 breadth of the area of the undertaking. All, to my
24 knowledge, perform to the tree improvement strategy for
25 the Ontario developed by OMNR.

1 This is a well thought out document, in
2 my opinion, it's been vetted before geneticists with
3 international reputations and I think it maps out a
4 reasonable course of action for the next 25 years at
5 least.

6 The tree improvement co-operatives in the
7 province to which Industry belong, the Ontario Tree
8 Improvement Council and the North Shore Tree
9 Improvement Co-Operative follow this document rather
10 closely.

11 The principal species on which tree
12 improvement efforts are concentrated are jack pine,
13 black spruce, white spruce and white pine at the
14 moment. The largest, of course, programs by far are
15 dealing with jack pine and black spruce.

16 The tree improvement programs are
17 generally speaking about five years old across the area
18 of the undertaking, I believe they began first in
19 northwestern Ontario around 1980, and we are very
20 closely approaching the point where all of the
21 necessary seed orchards and family tests standards will
22 have been established perhaps by the end of this coming
23 summer. So within -- over a ten-year time frame the
24 basic building blocks will be put in place.

25 The benefits in tree improvement that are

1 seen - to answer Mr. Freidin's direct question - are
2 improvements in the form and the growth rate of trees.
3 By form I mean things like stem straightness, fine
4 branches which minimize knot content - the knots are,
5 of course, a negative factor both in lumber and pulp
6 paper production.

7 Other characteristics that we breed for
8 would be narrow compact crowns so that the trees can be
9 planted at wider spacing and, therefore, potentially
10 minimizing plant costs without creating a large crown
11 tree with heavy branches. So there is some major
12 benefits to be had with breeding for crown size.

13 And, of course, volume is also a
14 consideration, but depending on the species the
15 priorities change. With jack pine it's often a crooked
16 tree and the first priority should be to improve the
17 form of the tree. Form is highly controlled
18 genetically; whereas growth rate is less well
19 controlled. So the best benefits in the short run come
20 from improving the form of the tree.

21 With black spruce the major benefit would
22 be in volume improvement because the form of black
23 spruce is generally quite good and it's best to
24 concentrate on volume in the short run. The genetic
25 gains are somewhat speculative at the moment but by

1 inference from other species in other jurisdictions we
2 expect a minimum of 10 per cent improvement in usable
3 volume in the first generation of breeding, which is
4 about 25 years, and in each of the two subsequent
5 generations to that I believe we can get at least 20 --
6 10, excuse me, if not 20 per cent gains.

7 So I think that basically spells out the
8 details of the program and benefits we hope to achieve.

9 Q. What do you mean by a generation?

10 A. Generation is the breeding cycle and
11 it corresponds to the length of time required by the
12 tree to reach sexual maturity and for the offspring of
13 the initial breeding program to be evaluated,
14 selections made, and then the best individuals
15 recombined to produce a second generation, and that can
16 vary by species, but roughly it's 25 years.

17 Q. Okay, thank you.

18 Mr. Squires, when Mr. Nicks was referring
19 to Exhibit 1142 - and you don't have to look at it -
20 this is where he was showing the increase in site
21 preparation that occurred since the FMA program, he
22 made the comment that that increase was due to Industry
23 commitment and commitment by government through the
24 provision of funds.

25 Can I take it that the same reasons,

1 commitment by Industry and the provision of funds was
2 also involved in the increase in the regeneration
3 activity through that same period, 1980 to the present?

4 MR. SQUIRES: A. I believe that to be a
5 fair statement.

6 Q. Thank you.

7 I will ask this question, I guess -- I
8 think Mr. Nicks and Mr. Ferguson spoke at greatest
9 length about the various assessment forms, quality
10 assessment forms - I think they are in your appendix -
11 the ones for site prep and for planting.

12 I was wondering whether either of you
13 gentlemen or anyone on the board can advise whether
14 those forms are based in fact on Ministry of Natural
15 Resources documents?

16 MS. CRONK: I am not sure my friend
17 really did want to hear evidence from the Board, but
18 maybe he does.

19 MADAM CHAIR: I don't have an answer to
20 that.

21 MR. FREIDIN: I said the Board.

22 Q. Well, how about the panel, the panel
23 of witnesses?

24 MR. NICKS: A. I could offer a
25 suggestion to the Board on that subject. Although the

1 planting assessment forms we use are of our own design,
2 were not copied verbatim from the MNR, it's fair to say
3 that the criteria are similar and that much of the
4 basic research, if you want to call it research, was
5 undertaken by the MNR and there were some comparative
6 studies I believe in the Thunder Bay area in the early
7 1980s which attempted to relate visible planting
8 defects to survival of seedlings, and there is
9 publication out on that and I think that that
10 publication lends some credibility to the Ministry's
11 assessment system and so, therefore, it's been adopted
12 by a larg matter.

13 Q. And you agree with that, Mr.
14 Ferguson?

15 MR. FERGUSON: A. Yes. I would say the
16 basis for most of the forms which we use have their
17 roots in MNR procedures. They have been -- much of the
18 same criteria are contained in the forms, they have
19 been adapted and modified, we feel improved slightly to
20 suit our own needs.

21 Q. Okay, thank you. Mr. Gemmell, you
22 probably spoke about advance growth more than anyone
23 and, as a general definition, listening to your
24 evidence -- well, first of all, when you spoke about
25 the advance growth, you were speaking about the black

1 spruce which was on the site which if left was going to
2 form the next crop?

3 MR. GEMMELL: A. That's correct.

4 Q. And is it fair to say that is the
5 normally accepted use of the term advance growth?

6 A. I think so. I would use it in that
7 fashion, yes.

8 Q. All right. That material that is
9 left on the site after harvest which is expected to
10 grow and, in fact, form part of the next crop?

11 A. That's correct.

12 Q. That a tree species which was not
13 expected to form part of the next crop may be a
14 completely undesirable species, as I understand it, is
15 more commonly referred to as a residual because it's
16 left but it doesn't form advance growth, using the
17 definition -- that definition?

18 A. Yes, and I would use advance growth
19 specifically to a species such as black spruce.

20 MR. MURRAY: A. Mr. Freidin, if I may
21 just add to that. Considering maple, your definition
22 of advance growth doesn't really fit the basis of what
23 you said, in that you said left after harvest to form
24 the next crop. You implied that it might be small --
25 small advanced regeneration; whereas, in the selection

1 system, trees left after harvest could be very large
2 for the next crop, but they are not considered as
3 advance growth. They are residuals, yes, but not
4 advance growth.

5 Q. All right. But in that example,
6 there would still have to be -- you are talking about a
7 species which is going to form the next crop?

8 A. That's correct.

9 Q. I see.

10 Mr. Waddell, and maybe either you or Mr.
11 Nicks, remember when you laid out the trees on the
12 floor and two were from blocks either A and B, there
13 were two things. Was that the study where we had
14 blocks A, B, C and D.

15 A. Yes, they were from blocks B and C.

16 Q. Right. And could you advise me
17 whether the site conditions on those sites A, B, C and
18 D were similar or not?

19 A. I will ask Brian to speak to that
20 because he did the personal inspection.

21 MR. NICKS: A. Yes. On the basis of
22 soil pits and probes taken in all four blocks they were
23 similar, yes.

24 Q. Thank you.

25 MR. WADDELL: A. Did you actually do

1 soil pit inspections?

2 MR. NICKS: A. We did soil pit
3 inspections on blocks A and B and soil probes, which
4 basically extract a core of soil down to one metre on C
5 or D, but either method is reliable in terms of
6 determining texture and moisture regime.

7 Q. Mr. Waddell, page 150 of the witness
8 statement describes some reductions in certain
9 silvicultural activities as a result of the reduction
10 in silvicultural funding in the one year referred to.

11 Are we to infer from that evidence that
12 those areas will never receive a renewal treatment?

13 MR. WADDELL: A. No, you certainly can't
14 infer that. I think the term I used was deferral,
15 those areas have been deferred from treatment for that
16 year. Depending upon the allocation this year or next
17 year, the funding allocation, hopefully those areas
18 will be treated. So treatment has been deferred, not
19 cancelled.

20 Q. Okay, thank you.

21 Mr. Squires, my notes may be wrong, I
22 just want to make sure I understood your evidence. You
23 were referring to the factors to be taken into account
24 when choosing a renewal method.

25 My notes indicate that you said that you

1 might use prescribed burn where you used full-tree
2 harvest, and did I mishear you?

3 MR. SQUIRES: A. I probably should have
4 said tree-length.

5 Q. Tree-length. You rely on the slash
6 that you leave as a fuel for the prescribed burning?

7 A. That's correct.

8 Q. Thank you. Mr. Waddell, perhaps a
9 technical matter. You gave evidence about the
10 obligation in the FMA agreements to cut between 90 and
11 110 per cent of the MAD for each working group?

12 MR. WADDELL: A. Yes.

13 Q. And am I correct that that is only a
14 requirement -- or that is not a requirement if in fact
15 you declare a surplus?

16 A. That is correct.

17 Q. We are getting near the end because I
18 am getting into the cross-examination of Mr. Hanna and
19 I will stick with you, Mr. Waddell.

20 You and Mr. Hanna had a discussion at
21 some length about how you deal with non-timber values
22 and what you can do or you can't do in normal operating
23 areas.

24 And I wanted to confirm that my
25 understanding is correct, that normal operating areas

1 are not areas which are identified at the beginning of
2 the planning process, but rather you start with the
3 total allocated area, you plan for non-timber values,
4 and normal operating areas is what is left over where
5 you can carry out your operations in a normal fashion?

6 A. That's correct, it's the fallout
7 after all other values have been considered.

8 MR. FREIDIN: Could I just have one
9 moment, Madam Chair. I am having trouble deciphering
10 my notes.

11 Q. Let me stick with you, Mr. Waddell.
12 I can't tell from my notes -- no, I think this was
13 perhaps for Mr. Ferguson, talking about annual work
14 schedules, and this was again Mr. Hanna.

15 You were talking about the site
16 characteristics that it is desirable to have
17 information about when in fact you make decisions. I
18 think there are some nine site characteristics outlined
19 on page 56.

20 And I understand that as a result of the
21 remoteness of some areas that you can't actually get
22 out on the ground and walk every piece of ground that
23 you are going to carry out operations, you can't do
24 that in advance on all the land base?

25 MR. FERGUSON: A. That's correct, yes.

1 Q. And can you tell me: Do you believe
2 that through other means, local knowledge,
3 photointerpretation, et cetera, that you have
4 sufficient information to make sound silvicultural
5 prescriptions notwithstanding you can't get out on
6 every piece of ground in advance?

7 A. I believe that as a general rule we
8 can make sound silvicultural prescriptions based on our
9 knowledge -- our general knowledge of the site
10 information we have available through FRI maps,
11 photointerp, aerial reconnaissance.

12 The point I was trying to make with Mr.
13 Hanna is that although we can come fairly close in most
14 cases before the fact, I myself - and I think most of
15 my colleagues would agree - that post-cut inspection is
16 also very important just to confirm our initial
17 observations. Once the timber is removed from the site
18 you have a much better ability to assess the actual
19 soil conditions, the number of residuals that might be
20 left, the amount of slash that may be left and this
21 type of information which may allow you to modify your
22 prescriptions somewhat.

23 I am thinking possibly of the situation
24 where your initial observations of the site before the
25 cut would imply that perhaps a planting renewal

1 technique was in order; following the harvest, as you
2 have a better picture of the site, perhaps seeding
3 would be equally effective, and flexibility in my
4 opinion should be there to make that change.

5 Q. And I take it, is there any
6 disagreement with that evidence from anyone on the
7 panel?

8 MR. GEMMELL: A. No. Actually I would
9 like to emphasize that especially just immediately
10 before the harvest that the supervisors have the
11 ability to make some on-site decisions also, and very
12 important after the harvest too to look at things like
13 our advance growth on the site.

14 Q. Thank you. Mr. Waddell, you made a
15 comment to Mr. Hanna, again in relation to non-timber
16 values. You said the forest management unit may not be
17 the appropriate area on which to assess the effects of
18 timber management on non-timber values.

19 I take it then you would agree that if
20 you are talking about assessing the effects of timber
21 management on non-timber values such as wildlife that
22 the appropriate area on which to do that would be
23 something that you would want to leave to the wildlife
24 experts?

25 MR. WADDELL: A. Yes, I would. There is

1 nothing sacrosanct about forest management unit
2 boundaries in terms of wildlife, they pass back and
3 forth, and I think it would not be appropriate to use
4 those perimeters of the management unit to determine
5 the effect on wildlife.

6 Q. You would rely on the wildlife
7 biologists--

8 A. Certainly.

9 Q. --to make the decision in that
10 regard?

11 A. Yes.

12 Q. Thank you. You gave some evidence
13 about the percentage of the area on the -- I think you
14 were talking about both the Upper and the Lower Spanish
15 which were reserves or tied up in reserves, I think you
16 said 15 per cent.

17 A. I believe it's 14 point something.

18 Q. When you used that term reserves, we,
19 at least in the Ministry evidence, used that term to
20 mean an area where there would be no operations. We
21 did not include areas where there would be modified
22 operations as a result of a concern about non-timber
23 values. How were you using the term reserves?

24 A. I am using it a little different from
25 what you are, Mr. Freidin, I am using it in the sense

1 that my 14 point some per cent in the Upper and Lower
2 in the next five years is harvest -- timber harvest
3 operations are restricted in some sense (a) in some
4 areas they will not occur at all.

5 Q. Right.

6 A. (b) in other areas, they may be
7 permitted but under very controlled conditions, and in
8 that category we will be able to extract some wood but,
9 in my opinion, in the majority of those areas we will
10 not because the conditions are so difficult for us on
11 an operational basis to meet that we may see fit not to
12 remove any of the timber in those particular areas of
13 concern.

14 Q. Right. And the areas, when you say
15 that some of these areas will have operational
16 difficulties, you're talking about the areas where you
17 would be allowed to take out some?

18 A. Yes. I thought -- excuse me.

19 Q. Yes. Give me an example?

20 A. The prescription that is developed by
21 the Ministry forester and the company forester, for
22 example, on a particular area of concern may be that we
23 can only extract trees of a certain diameter from the
24 back 200 feet. The first 200 feet there will be no
25 harvesting, the back 200 feet -- in other words, the

1 entire area is a 400-foot area of concern, the back 200
2 feet we may be allowed to extract trees of a certain
3 diameter. Looking at the area there may not be enough
4 trees, for example, 12 inches and up in there to make
5 it worth our while to go in, so we will not extract any
6 wood from that area, just as an example.

7 Q. Okay. And in that example, the back
8 and the front, we are talking -- are you picturing a
9 water body?

10 A. Yes, you are. The 200-foot closest
11 to the water would be a true reserve in which no
12 harvesting operations would be permitted because of a
13 fisheries value very likely.

14 The 200 feet back behind that some form
15 of modified harvest cutting may be permitted but the
16 restrictions on operating may be so stringent that we,
17 in our opinion, would bypass it because we feel that
18 the costs would be so high or the risk of incurring
19 some kind of an infraction on our part might be so high
20 that we would back away from it completely.

21 So, in effect, you have a 400-foot body
22 of timber next to that water in which no operations
23 have been conducted.

24 Q. All right. And are you able to give
25 any reasonable estimate as to what portion of the 15

1 per cent are true reserves as we discussed them and
2 what part -- well...

3 A. No, I am not to, Mr. Freidin.

4 Q. Okay, thank you. You gave some
5 evidence in relation to the inflation factor which is
6 referred to, I believe it's in the FMA agreements?

7 A. In the FMA Task Force Report.

8 Q. Right.

9 A. Also the FMA agreements, yes.

10 Q. Right. And I understand that the
11 factor which is used now is the average GNE price
12 index?

13 A. That's my understanding.

14 Q. And there was some concern that
15 perhaps the index should be based on the forestry
16 sector; is that...

17 A. Yes. Since the great majority of
18 costs in our renewal programs is made up of labour,
19 equipment and fuel, our preference would have been to
20 have an inflation factor based solely on those three
21 items, and we felt that that would make it more
22 responsive to our true inflationary costs.

23 Q. Do you know whether the factor -- how
24 the two factors compared, whether one was higher or
25 lower than the other?

1 A. I don't know as of 1990, but I would
2 certainly assume, if I may, that over the five-year
3 period, given the high cost increases that we have seen
4 in fuel and in equipment in particular, that a weighted
5 inflation factor based on those three items, along with
6 labour, would end up higher than the G what?

7 Q. GNE index?

8 A. GNE.

9 Q. Okay. That's your assumption then?

10 A. That's my assumption.

11 Q. Mr. Gemmell, you gave evidence, again
12 this was cross-examination by Ms. Swenarchuk, she was
13 looking at your case study 4D, she looked at three
14 sites; two were naturally regenerated and got stocking
15 around 51, 52 per cent?

16 A. That's right.

17 Q. One was artificial and got 12.5 per
18 cent greater stocking?

19 A. Greater stocking, thank you.

20 Q. Greater stocking than the 51 or 52,
21 and she was suggesting or asking why you would spend
22 all that money to artificially regenerate the site when
23 the only difference was 12.5 per cent.

24 And what again what was your reasons for
25 the investment?

1 MR. GEMMELL: A. I indicated that block
2 A, which was the upland site, is the very productive
3 clay site and it will regenerate those planted trees in
4 a rotation age of between 60 and 80 years, and also
5 that natural regeneration on those sites is not very
6 successful because of the high degree of competition
7 from other brush and other species, and that they are
8 two different sites in that blocks B and C were the
9 other end of the continuum, the lower peat sites where
10 natural regeneration is very successful and where also
11 the rotation ages would be much greater, something in
12 the order of -- well, at least 120 years.

13 So, therefore, the investment on the
14 better sites, in my opinion, is quite well worth it.

15 Q. All right. So that's another example
16 where just looking at numbers and looking at the
17 difference, in this case between two percentages,
18 doesn't tell you the story?

19 A. Absolutely correct.

20 Q. You have got to get a lot of
21 information in addition to that?

22 A. That's right.

23 Q. In relation to this advance growth,
24 am I correct that the procedure that is used there is
25 often referred to as careful logging around advanced

1 growth also using the acronym CLAGG?

2 A. That is one phrase that is used, yes.

3 Q. And am I correct, sir, that the
4 careful cut clearcut, which is not cut clear because
5 you use CLAAG, because you were in fact employing the
6 clearcut silvicultural system?

7 A. That's correct.

8 MR. FREIDIN: Those are my questions,
9 Madam Chair.

10 MADAM CHAIR: Thank you, Mr. Freidin.
11 Glad you cleared all that up.

12 MR. MARTEL: Could you repeat it?

13 MR. FREIDIN: Yes, I can.

14 MADAM CHAIR: Ms. Cronk, are you going to
15 need -- Ms. Seaborn, how long are you going to be this
16 morning?

17 MS. SEABORN: My estimate was two to
18 three hours. I believe that's a fair estimate at this
19 stage.

20 MADAM CHAIR: All right. Do you think we
21 will be getting to Panel 7 tonight?

22 MS. CRONK: Today or tomorrow, Madam
23 Chair. Today presents a difficulty of course, only
24 because of the arrangements that were concluded on
25 Friday, that panel of witnesses was informed that they

1 would be starting tomorrow. You will recall last
2 Thursday when we spoke I thought we might actually be
3 starting yesterday afternoon.

4 They are in Toronto, I don't know if I
5 can reach them; if I had to, I could try to make that
6 effort, but it was left with them when they were called
7 on Friday that they would be - based on the discussion
8 I had with the Board - starting tomorrow morning.

9 MADAM CHAIR: That is fine. How long
10 will you be in re-examination?

11 MS. CRONK: Less than hour I would think.
12 About an hour though.

13 Sorry, sir?

14 ---Discussion off the record

15 MR. MARTEL: Well, the problem I think is
16 that there is a concern of getting Dr. McCormack done
17 before the end of May, and we are not going to be here
18 next week.

19 MS. CRONK: Yes, it is. And perhaps if
20 it's an appropriate time I can talk about that
21 scheduling aspect, or perhaps you prefer to do it
22 later.

23 MADAM CHAIR: Well, why don't we do it
24 now. It looks like we are going to be finished earlier
25 today.

1 MS. CRONK: All right. The situation, as
2 I understood it - just so my position and understanding
3 is clear for the Board - when we adjourned last
4 Thursday I thought it might be possible that the
5 tending panel could be reached late this afternoon and,
6 Mr. Martel, you may remember there was some discussion
7 about that, and I described it as slim chance, I
8 thought maybe even half an hour we might get in based
9 on the estimates that we had, and that's the way it was
10 left.

11 Then, because of developments on the
12 Friday, those witnesses were called, some of whom, as
13 you know, were coming -- many of whom were coming from
14 out of town and were told it was likely now, based on
15 the estimates I then had in a discussion I had with the
16 Board, that they would not be required to start until
17 tomorrow morning.

18 The loss of a day this week and the
19 timing estimates we had do present some difficulties
20 with respect to Dr. McCormack. And that difficulty,
21 you may recall from several weeks ago - quite apart
22 from health issues - is that he's scheduled to be out
23 of the continent, is the way I described it, beginning
24 the first week in June. He is to be in New Zealand,
25 Australia on teaching commitments for several weeks

1 beginning the first week of June.

2 I recognize the Board has a site visit
3 next week and, therefore, the continuation of the
4 tending evidence, I had assumed, would continue the
5 week of the 28th of May.

6 I am unaware as to what the Board's
7 present preference is in terms of sitting that week,
8 but I am, speaking only for myself, quite confident
9 based on the estimates of time that I have received
10 that if we sit only three days that week that panel
11 will not be completed that week, and that is because I
12 anticipate cross-examination will begin the first day
13 of that week when the Board sits but Mr. Castrilli -- I
14 have been unable to get confirmation from Ms.
15 Swenarchuk or Mr. Castrilli as to how long he expects
16 to be in cross-examination, but the estimates have
17 ranged from between one to two days. Mr. Hanna has
18 told me approximately a day, Ms. Seaborn and Mr.
19 Freidin, when we last discussed it, said to the extent
20 that they can estimate at the moment, several hours
21 each. So all in, that is potentially four days of
22 cross-examination.

23 That being the case, I was going to ask
24 the Board whether they would consider sitting longer,
25 that is an additional day if necessary, during the week

1 of the 28th. I was going to propose that we actually
2 start the Monday. I think the Board schedule at the
3 moment is to start the Tuesday. I didn't have that in
4 front of me on the weekend actually, but I was going to
5 suggest that we start the Monday and see where we are
6 by the Tuesday or the Wednesday and, if necessary,
7 perhaps even sit half an hour later those days.

8 That makes for a very long day and, as
9 the Board is aware, there has been some health
10 difficulties for members of that panel, but having said
11 that I am quite concerned that if we cannot complete
12 that panel that week it is going to present
13 difficulties.

14 Now, having said that, these witnesses
15 are in Toronto. I could over the next hour or so see
16 if I can reach them and, if necessary, we can start
17 this afternoon. But it's possible I won't be able to,
18 that's all I am saying, based on the conversations
19 I've had.

20 MADAM CHAIR: Of course the Board will
21 sit longer the week of the 28th, whatever it will take
22 to get that panel done.

23 MS. CRONK: Could we begin -- take it
24 then that the Board would be prepared to begin on the
25 Monday rather than the Tuesday of that week and sit at

1 least the four days?

2 MADAM CHAIR: Certainly.

3 MS. CRONK: What's happened, as the Board
4 will appreciate in the past, is that for reasons that
5 are entirely legitimate, when individuals provide
6 estimates of cross-examination it's sometimes much
7 shorter. So that if we started on the Monday, I am
8 hopeful we will in fact be finished that panel by the
9 end of the day Thursday, but I know there will be some
10 evidence-in-chief on Monday morning, we will not finish
11 their evidence-in-chief tomorrow.

12 MR. MARTEL: If we started today though?

13 MS. CRONK: If we started today, that is
14 possible. I am just not sure, sir.

15 MADAM CHAIR: It's entirely up to you.
16 If you want to call your witnesses and if you think you
17 can get them in here later this afternoon, go ahead.

18 MS. CRONK: Could I explore that
19 possibility and alert the Board as to the situation
20 perhaps after lunch; if that's possible?

21 It also means getting some tending
22 materials down here. It gets a little complicated.

23 MADAM CHAIR: Yes. Well, if you want to
24 start later today, we will certainly sit.

25 MS. CRONK: Thank you.

1 MADAM CHAIR: If you aren't ready to
2 start until tomorrow morning, that's fine.

3 MS. CRONK: Thank you.

4 MADAM CHAIR: Ms. Seaborn?

5 MS. SEABORN: Madam Chair, you will
6 recall that yesterday Ms. Swenarchuk was going to be
7 addressing the Board on the issue of the timing of her
8 witnesses.

9 MADAM CHAIR: 11:30 yesterday.

10 MS. SEABORN: Yes, 11:30 yesterday. Does
11 the Board know if she's coming today?

12 MADAM CHAIR: We will check over the
13 break and see if she has gotten in touch with us.

14 Ms. Seaborn, do you want to start now, or
15 is it going to take you a few minutes to prepare?

16 MS. SEABORN: I am ready to begin. It
17 will take me about three or four minutes to set things
18 up. If the Board would prefer to take the morning
19 break now...

20 MADAM CHAIR: Why don't we take 20
21 minutes now.

22 MS. SEABORN: Thank you.

23 ---Recess taken at 9:55 a.m.

24 ---On resuming at 10:15 a.m.

25 MADAM CHAIR: Please be seated.

1 I have three telephone numbers here if
2 you wish to call us in this building. I don't know
3 which number I gave out before, but perhaps you would
4 like to take these three numbers down: 965-1845.

5 MS. CRONK: Sorry, Madam Chair, could you
6 repeat that, please?

7 MADAM CHAIR: 965-1845, 965-1545 and
8 965-1544. So whatever number we were calling before,
9 don't call it any more. Try one of these three.

10 A second matter, Michelle Swenarchuk
11 called and I think she wanted to go through the outline
12 of her case at 11:30 this morning.

13 Is that a convenient time, or --

14 MS. SEABORN: As we approach 11:30 I will
15 see where I am in my questions and we'll break
16 somewhere around that time.

17 MADAM CHAIR: All right. We will do that
18 and we won't plan on having Panel 7 come this
19 afternoon.

20 MS. CRONK: Fine. Thank you very much,
21 Madam Chair.

22 MS. SEABORN: Good morning, gentlemen.
23 We have been moving this panel slowly south, starting
24 in Thunder Bay, Yonge and Eglinton and now to Bloor
25 Street, and hopefully we will be finished with the

1 renewal panel early this afternoon.

2 I would like to begin, Madam Chair, by
3 filing a number of interrogatories that were requested
4 on behalf of the Ministry of the Environment, and the
5 first set is in relation to Panel 4, and I will read
6 the questions in for the record. Questions 5(a), 7(a),
7 7(b), 8, 10(a), 15, 17(b), 24, and 25.

8 MADAM CHAIR: That will be Exhibit 1158.

9 MS. SEABORN: (handed)

10 MADAM CHAIR: Thank you.

11 ---EXHIBIT NO. 1158: MOE Interrogatory Question Nos.
12 5(a), 7(a), 7(b), 8, 10(a), 15,
13 17(b), 24, and 25 re OFIA/OLMA
Panel No. 4.

14 MS. SEABORN: And the second set of
15 interrogatories, again posed by the Ministry of the
16 Environment, relate to Panel 8. And these are
17 Questions 1, 2, 3, 4, 7 through 10, 12, 13 and 14.

18 MADAM CHAIR: That's Exhibit 1159.

19 MS. SEABORN: (handed)

20 MADAM CHAIR: Thank you.

21 ---EXHIBIT NO. 1159: MOE Interrogatory Question Nos.
22 1, 2, 3, 4, 7 through 10, 12, 13
and 14 re OFIA/OLMA Panel No. 8.

23 MS. SEABORN: Madam Chair, some of those
24 questions within packages may be duplicates. I had the
25 material xeroxed and organized some time ago, so I

1 apologize if there are a couple of questions that
2 already have an exhibit number.

3 CROSS-EXAMINATION BY MS. SEABORN:

4 Q. Mr. Ferguson, I would like to begin
5 with a few questions for you. One of the position
6 statements that was put forward by the Industry during
7 Panel 6, the harvest panel, was that harvesting
8 activities are an essential and necessary part of a
9 sound timber management program; harvesting is a vital
10 step in the renewal process; and, further, that an
11 integrated relationship exists between harvesting,
12 renewal- and other timber management activities.

13 Do you agree with this proposition?

14 MR. FERGUSON: A. Yes, I do. Harvesting
15 certainly sets the stage for renewal.

16 Q. And so you would agree that there is
17 a link, a vital link between harvesting and renewal?

18 A. There is definitely a link, yes. I
19 don't know if it's essentially vital. There are other
20 things which may lead to renewal such as other
21 disturbances such as fire or windthrow, whatever.

22 Q. I am looking at it in the context of
23 Industry's position in this hearing that one cannot
24 view one of those activities in isolation of the other?

25 A. There is definitely a strong link

1 there, yes.

2 Q. Could we turn to case study 4A which
3 is Exhibit 1100 and page 32 under 4A. Now, under
4 paragraph 7.2 Alternatives, the renewal options for the
5 deep mineral soil sites are listed as (a) site
6 preparation for natural seeding; (b) site preparation
7 followed by direct seeding; and, (c) site preparation
8 followed by planting.

9 Could you rank for me the renewal
10 alternatives in terms of cost, beginning with the least
11 costly?

12 A. Rank them in order of costs from
13 least to most costly?

14 Q. Yes.

15 A. Site preparation for natural seeding
16 would of course be the least costly; site preparation
17 followed by direct seeding would be very close,
18 slightly more expensive but not a great deal; and site
19 preparation for planting will, of course, be the most
20 expensive.

21 Q. And I believe we heard evidence that
22 alternative (b) site preparation followed by direct
23 seeding was selected as the preferred regeneration
24 option?

25 A. That's correct, yes.

1 Q. And the harvest system that was
2 linked with the preferred renewal option was the
3 tree-length logging harvest system; is that correct?

4 A. That is also correct, yes.

5 Q. And in that system the slash would be
6 left on the site?

7 A. Correct.

8 Q. Now, the jack pine slash, as I
9 understand it, had a high cone content and was well
10 distributed across the cut-over?

11 A. Yes, that is also true.

12 Q. And at page 42 of the case study the
13 stocking levels are listed.

14 A. Yes, I have it.

15 Q. And we see that in the middle of the
16 page under item (b) the jack pine off-patches, there
17 was -- a 20 per cent stocking was achieved; is that
18 correct?

19 A. Yes, 27 per cent according to our
20 second-year sample.

21 Q. And later on in the case study - I
22 don't think it's necessary to go to it - I believe the
23 evidence was that by the fifth year the stocking had
24 reached 45 per cent.

25 A. I don't recall the exact number. It

1 increased substantially, yes.

2 Q. Okay.

3 A. Right, 45 per cent on page 44.

4 Q. Yes, thank you, under the fifth-year
5 stocking assessment part of...

6 A. Right.

7 Q. Now, we heard evidence, I believe it
8 was either during the Panel 4 direct testimony or
9 during the Panel 8 direct testimony that the results
10 with respect to the direct seeding were not as good as
11 one might have expected on this site type; is that
12 correct?

13 A. Yes. I feel that is largely the
14 effect of the site preparation method and simultaneous
15 seeding as opposed to direct seeding treatment in
16 general.

17 Q. And would you agree that without the
18 natural seed source that remained on the site as a
19 result of the logging phase, being the tree-length
20 logging, it would have been difficult to reach the 40
21 per cent minimum stocking objective?

22 A. Perhaps I could just ask you to
23 repeat that?

24 Q. Yes. Based on the results you found
25 on this site with respect to the direct seeding, would

1 you agree that had there not been natural seed
2 remaining on that site that it would have been
3 difficult to have reached your 40 per cent stocking
4 objective?

5 A. With the type of site preparation
6 that was incorporated, yes, that would have been
7 difficult with the Bracke in that there was very little
8 mineral soil exposure and seedbed created.

9 If we had been counting solely on the
10 natural regeneration of the jack pine from the seed in
11 the slash, then the Bracke site preparation would not
12 have been an appropriate site preparation technique.

13 Q. Now, if this particular site had been
14 full-tree harvested, am I correct that the area would
15 not have reached minimum stocking standards based on
16 the treatment that was offered for that site?

17 A. If the full-tree harvest had occurred
18 on such a site, then a different form of site
19 preparation would be necessary, would prescribe more a
20 furrow-type site preparation or a different type of
21 Bracke site preparation which would expose more seedbed
22 and permit direct seeding by some other form than was
23 utilized, yes.

24 Unlikely that it would have achieved
25 minimum stocking with just natural seed on the site.

1 Q. Okay. And so you would have to have
2 prescribed a treatment that would account for that
3 removal of seed source that occurs through the
4 full-tree harvest method in your site preparation
5 technique?

6 A. In this particular situation, yes, in
7 the jack pine, yes.

8 Q. Okay. I would like to look for a
9 moment at the silvicultural groundrules for this
10 particular case study, Mr. Ferguson, which begin at
11 page 50. If you go to the second page of the Table 1.

12 MR. FERGUSON: A. The jack pine part of
13 the table there?

14 Q. Yes.

15 A. Yes.

16 Q. And under site description and site
17 class entry No. 2 where you have deep mineral soil.

18 A. Mm-hmm.

19 Q. And the proposed working group is
20 jack pine and the specification -- silvicultural
21 specifications under method of harvest it says
22 clearcut?

23 A. Correct.

24 Q. Now, would you agree with me that
25 there is nothing in this table that identifies the

1 harvest system as being the tree-length logging system?

2 A. That is correct, yes.

3 Q. And so I think you would also agree
4 with me that there is nothing in the groundrule then
5 that shows a link between the harvest system that you
6 ultimately chose to undertake on this site with your
7 renewal treatment options?

8 A. Simply the provision for harvest is
9 just identified as clearcut. Yes, it doesn't specify
10 whether it be tree-length or full-tree length.

11 Q. And in terms of what renewal
12 options -- or what your preferred renewal treatments
13 would be for that site type, there is no
14 differentiation made in the groundrules as to what
15 would happen if you full-tree harvested that site and
16 what sort of renewal treatment in the form of site
17 preparation you would undertake versus the renewal
18 treatment that you chose on account of the tree-length
19 harvest method; is that fair?

20 A. That's correct, yes. I would caution
21 you, however, that these groundrules that we are
22 looking at here are the 1980 version of the
23 groundrules. I believe the groundrules that are
24 currently under negotiation do have more specifics in
25 that regard.

1 Q. Okay. We are going to come to those,
2 but I appreciate that clarification.

3 Now, just one further question following
4 up from this particular table. Given the way the
5 groundrules are written, would you agree with me that
6 there would be nothing in this particular groundrule to
7 limit the forester in choosing as a silvicultural
8 package the full-tree harvest method followed by site
9 preparation for direct seeding?

10 A. That's correct. There are a number
11 of options which would be provided by this table, yes.

12 Q. What I am suggesting is that -- let
13 me back up a bit. What would be your view, if this
14 particular site type had been full-tree logged and site
15 prepared for direct seeding, in terms of success?

16 A. I think the success would have been
17 substantially higher, the stocking levels would be
18 higher and they would have been achieved in a shorter
19 period of time.

20 Q. And would that be based on the type
21 of site preparation that would be undertaken?

22 A. Yes, the site preparation would have
23 been different.

24 Q. Okay. And the site preparation would
25 have been a key factor in terms of achieving success on

1 that particular site?

2 A. That's correct, as well as the
3 seeding.

4 Q. And in terms of the seeding that you
5 referred to with the full-tree harvesting, that would
6 have to be aerial seeding; would it?

7 A. Yes, it would probably be an aerial
8 application in that case.

9 Q. Because you wouldn't be able to rely
10 on a natural seed source?

11 A. No, I wouldn't rely on a natural seed
12 source. It would be possible to do a ground seeding as
13 well, but the aerial would of course be probably more
14 effective than a ground seeding I would think.

15 Q. And the aerial would be a more common
16 prescription in any event?

17 A. That's right.

18 Q. And if that particular site type had
19 been full-tree harvested followed by planting, based on
20 the evidence you gave earlier as to ranking the
21 different regeneration alternatives in terms of cost,
22 that would be a more costly proposition in terms of
23 what the province would pay for the renewal treatment;
24 is that correct?

25 A. Yes. The initial cost would

1 certainly be higher of planting as opposed to seeding.
2 Long term, if it became necessary as a result of the
3 seeding treatment that a thinning operation would have
4 to be prescribed, then the cost may be more equitable.

5 Q. Mr. Nicks, I would like to ask you a
6 few questions in relation to case study 4B. And I
7 understand that -- do you have that in front of you,
8 4B?

9 A. The case study, yes.

10 Q. Yes. I understand that this area was
11 chosen because it contained a well documented
12 comparison of aspen overstorey maintenance and aspen
13 overstorey removal prior to the planting of jack pine?

14 A. That's correct.

15 Q. And aspen stands of low to moderate
16 density on productive sandy soils from which the mature
17 jack pine had been removed were targeted for stand
18 conversion?

19 A. That's correct.

20 Q. And the preferred regeneration
21 treatment for the case study area was to site prepare
22 and plant; is that correct?

23 A. (nodding affirmatively)

24 Q. And am I correct that on the case
25 study area, and, presumably from other experience, E.B.

1 Eddy has found that aspen canopy removal in jack pine
2 planting is a preferred silvicultural treatment
3 package?

4 A. Yes, it is. The extent of course of
5 the treatment does not meet with the available area.
6 There is no -- as we tried to develop earlier, we are
7 not applying this treatment on all of the potential
8 area that is available. Yes, it's an option.

9 Q. And if you could turn to the
10 silvicultural specifications for your case study area
11 that begin at page 43, and if you could turn to the
12 first table, the first page of Table 1.

13 Now, there is no specific statement in
14 the groundrules, is there, that links the removal of
15 the aspen overstorey with the renewal options; is that
16 correct?

17 A. Not in the case of jack pine
18 certainly, nor in the case of poplar working group.

19 Q. Mr. Gemmell, if you could turn to
20 case study 4D.

21 MR. GEMMELL: A. Yes.

22 Q. In relation to the three harvest
23 blocks that we have heard about for this case study, I
24 understand block B was clearcut leaving .04 hectares of
25 patches of black spruce at about 91-metre spacing as a

1 atural seed source?

2 A. Yes, I will agree with the figures.
3 It's metric, we used to do it --

4 Q. I am sorry?

5 A. I will agree with your metric
6 figures. I find it hard to relate to them, that's all.
7 They're a 10th acre plots I believe.

8 Q. I think I copied them out of the
9 witness statement.

10 A. That's fine.

11 Q. You did have acres and feet in
12 brackets, it's at page 26. And would you agree with me
13 that the key, or the major factor to that particular
14 prescription being a success was the combination of a
15 group seed tree cut and the spacing so that a natural
16 seed source was available?

17 A. The original idea was that seed would
18 supply -- the renewal method was the seed source, yes,
19 and I have indicated that our results had indicated
20 that renewal in itself was largely due to the advance
21 growth.

22 Q. That's for the lowland sites though?

23 A. Which B is, a lowland site.

24 Q. And in terms of the size of the
25 patches or the spacing, would you agree with me that

1 that kind of detail doesn't appear in the silvicultural
2 groundrules?

3 A. The actual size and spacing, no, it
4 does not, that's correct.

5 Q. Yes, or the parameters for the size
6 or spacing?

7 A. Yes, that's correct, they are not in
8 the groundrules.

9 Q. And in relation to block C, I believe
10 the groundrules suggested a clearcut in alternate
11 strips or blocks and, again, there is no indication in
12 the groundrules as to the size or parameters of those
13 strips or blocks?

14 A. That's correct.

15 Q. Now, there was a discussion in the
16 harvest panel in relation to lowland black spruce sites
17 and Mr. Freidin asked some questions about them again,
18 and it's my understanding these sites today are largely
19 full-tree harvested carrying out this careful logging
20 around the advanced growth?

21 A. That's correct.

22 Q. Or the CLAAG as it's become known?

23 Now, in terms of this particular
24 prescription for the lowland sites where you are
25 full-tree harvesting and ensuring that there is

1 adequate advance growth, would you agree that in order
2 for this system to be effective the availability and
3 extent of that advance growth is the key factor?

4 A. That's correct.

5 Q. And could we look for a moment at
6 Exhibit 1129.

7 MS. SEABORN: This was an interrogatory
8 that was filed, Madam Chair, in the harvest panel and
9 it's an interrogatory in relation to case study 4D.

10 MS. CRONK: 11...?

11 MS. SEABORN: 1129. It's Forests for
12 Tomorrow Question 29, Panel 4.

13 MR. GEMMELL: Question 29?

14 MS. SEABORN: Yes.

15 MS. CRONK: Sorry, Ms. Seaborn, I can't
16 locate my copy. I don't know if the panel has a copy
17 or not.

18 MS. SEABORN: Q. Do you have a copy, Mr.
19 Gemmell?

20 MR. GEMMELL: A. Yes.

21 Q. I can lend --

22 MS. CRONK: Perhaps if you just gave me
23 the question number?

24 MS. SEABORN: Yes. It's question 29.

25 MS. CRONK: Of...?

1 MS. SEABORN: Forests for Tomorrow, Panel

2 4.

3 This was a question, Madam Chair, you
4 will recall, that I addressed in Panel 6 with those
5 witnesses and the question was:

6 "What method of regeneration is now used
7 for lowland areas?"

8 And the answer provided was:

9 "Silvicultural groundrules for the black
10 spruce lowland sites in use for the
11 management period 1990-1995 (Table
12 4.11)."

13 Q. Now, if we look at the first page of
14 the groundrules, Mr. Gemmell, would you agree with me
15 that under the first site description where we have,
16 for example, full-tree as one of the options for method
17 of harvest, that there is no mention under the renewal
18 treatment description of the significance of adequate
19 advance growth?

20 MR. GEMMELL: A. It's not specifically
21 mentioned, but it certainly is implied.

22 Q. Okay. And again, there is nothing in
23 the groundrules that makes any provision for the use of
24 high flotation tires in the summer, for example, being
25 put on equipment that is going to be operated for the

1 purpose of full-tree harvest?

2 A. Again, it's not mentioned, but it
3 certainly would be used, yes.

4 Q. So in your view that level of detail
5 is implicit in the groundrule?

6 A. Yes.

7 Q. Now, would it be your experience, Mr.
8 Gemmell, that as a general rule that natural
9 regeneration tends to be prescribed for poorer site
10 classes where there is a higher degree of failure?

11 A. Where there is a higher degree of
12 failure of the natural generation?

13 Q. No, in terms of a choice between
14 natural regeneration and artificial regeneration, you
15 are going to -- the tendency is going to be to leave
16 the poorer site classes for natural regeneration and so
17 that your investment in terms of artificial
18 regeneration is going to be directed to the better
19 sites?

20 A. I will agree with that, yes.

21 Q. Now, this was a question that I asked
22 in Panel 6 and Mr. Roll and another of the witnesses
23 suggested that I ask you on the renewal panel.

24 Under the first renewal treatment
25 description there's a statement:

1 "No artificial regeneration treatment,
2 leave for natural, no retreatment."

3 What does that refer to, the no
4 retreatment?

5 A. I think it just implies that in the
6 first place we are saying that there will be no
7 artificial regeneration because it's the bottom of the
8 bowl, it's a very unproductive site, and that the no
9 retreatment just accentuated that there would be no
10 re-investment of dollars in that site, and the
11 implication there is that there is really no problem
12 with renewal on that low site.

13 The site is so low that usually it's only
14 partially harvested and there is advance growth nearly
15 always on those sites, and there is just no reason to
16 expend any further monies.

17 Q. Now, if that particular site was
18 full-tree harvested and for whatever reason there had
19 not been sufficient advance growth and it had been
20 classified as a silvicultural failure, is there
21 anything implicit in that groundrule that would mean
22 that the company would not have to retreat that site?

23 A. Well, again I -- there is -- I would
24 pay you \$10 per stand that it will be successful if
25 there is a seed source left there, because the site

1 class 3 stands are only partially cut because it's at
2 the unmerchantable level and there is advance growth
3 there and there is even really a seed source if that
4 was necessary.

5 Q. Okay, I understand that, and I am not
6 disputing your evidence in relation to full-tree
7 harvesting where there is sufficient advance growth.
8 What I want to be clear though is that this statement
9 in the groundrule of no retreatment, does that in any
10 shape or form reflect an agreement with respect to this
11 particular management unit that should for whatever
12 reason this site fail that the company -- the clause
13 does not kick in that the company has to retreat at its
14 own expense, and if there is any retreatment there, the
15 province would pay for that?

16 A. That's a long statement. I think
17 that in terms of expending money, I don't think it
18 would be practical. So the reason for that statement
19 is the fact that there will not be expenditure of money
20 on that type of site under the present circumstances
21 anyway.

22 Q. So if a site such as that is
23 harvested and for whatever reason - and I'm not
24 suggesting this is going to happen - but if for
25 whatever reason there is failure, then it would be your

1 evidence that neither Industry -- that certainly
2 Industry would not expend any monies to retreat it, and
3 it would be unlikely that Industry would even go so far
4 as to ask MNR -- or, sorry, start the first step and
5 ask MNR to compensate for retreatment; it just wouldn't
6 be worthwhile on that site?

7 A. Well, that's the basis of those
8 statements; is that number (1) we feel very strongly
9 that it will regenerate after harvest--

10 Q. Right.

11 A. --without any problem, and (2) it's a
12 very poor site and we wouldn't want to expend a great
13 deal of money to regenerate it.

14 Q. Now, for these particular sites you
15 have talked about the importance of the advance growth
16 and you have said that, in your view, this is implicit
17 in the groundrule.

18 Would it be your opinion that any
19 forester looking at this sort of site would tend to
20 agree with you, that when you are talking about a
21 full-tree harvest, that advance growth is the key to
22 success?

23 A. Any forester working in the Clay
24 Belt?

25 Q. Yes, with your level of experience?

1 Let me put it this way: Would you be surprised if your
2 colleagues disagreed with you, those who operate in the
3 Clay Belt, with respect to the importance of advance
4 growth?

5 A. Yes, I would be surprised, yes.

6 Q. And if there was more detail required
7 in the groundrule with respect to the importance of
8 advance growth, would you agree with me that that would
9 not in effect limit your flexibility as to the sort of
10 operation you could carry out on that site type?

11 A. You are asking me, if there was more
12 reference to the fact that advance growth is important
13 in this renewal method?

14 Q. That's right.

15 A. I think if that were required it
16 would be acceptable.

17 Q. Mr. Squires, could you turn to -- in
18 fact, we don't need to get out the case study at the
19 moment. In your direct testimony you spent some time
20 reviewing the concept of stocking, and I believe your
21 evidence was that 40 per cent stocking standard for
22 softwoods can yield acceptable volumes?

23 MR. SQUIRES: A. That is correct.

24 Q. And you also said that a natural
25 mixed wood regeneration of a softwood working group

1 - could be as low as 33 per cent. Do you recall that
2 evidence?

3 A. I recall the evidence. I don't think
4 - you made a complete statement.

5 Q. Okay, where was I incorrect?

6 A. I said I don't think you made a
7 complete statement. Would you rephrase what you said?

8 Q. I will just pull out the reference so
9 I make sure that I don't misquote you. You had said in
10 the transcript - and, Madam Chair, I am referring to
11 Volume 198, page 34990 - you were talking about the
12 study in relation to stocking and the plots, and you
13 said:

14 "Fifthly, a natural mixed wood
15 regeneration of the softwood working
16 groups, stocking as low as 33 per cent
17 and total stocking of all species of 54
18 per cent can be an acceptable stand."

19 And then Ms. Cronk said:

20 "Acceptable in what sense?"

21 And I think this is where you want me
22 to -- where you said I didn't give a complete
23 description of your question and answer, which was:

24 "Acceptable in that they will have
25 merchantable volumes that by today's

1 standards are acceptable to the
2 Industry."

3 A. Yes, I did.

4 Q. And so that was the qualifier that
5 you wanted to put on the 33 per cent?

6 A. Yes. Thank you.

7 Q. Now, if you had a stand that was 33
8 per cent stocked and cut the conifer leaving residuals,
9 would that stand become untreatable based on residuals?

10 A. It would certainly be very difficult
11 with most prescriptions to regenerate to softwood.

12 Q. And generally for conifers the
13 minimum stocking standards set out in the groundrules
14 is 40 per cent, and the objective stocking to
15 acceptable species is usually 60 to 70 per cent?

16 A. Usually, yes.

17 Q. And --

18 A. I'm sorry, that is confined to the
19 Spruce River Forest groundrules, I can't speak of other
20 areas.

21 Q. Okay. Mr. Ferguson, is your
22 experience that it would normally be 40 per cent
23 minimum and 60 to 70 per cent for objective stocking
24 standards?

25 MR. FERGUSON: A. Yes, the minimums are

1 normally applied -- for seeding treatment and natural
2 regeneration for the objectives are in the range of 60
3 to 70, that's correct.

4 Q. And Mr. Nicks?

5 MR. NICKS: A. I concur with that range.

6 Q. And Mr. Gemmell?

7 MR. GEMMELL: A. Yes.

8 Q. Thank you. Now, we have heard some
9 evidence that if there is a failure, the FMA holder is
10 obligated to retreat at their own expense; is that
11 correct, Mr. Squires?

12 MR. SQUIRES: A. To my knowledge, yes.

13 Q. And this obligation to retreat may be
14 varied if there is a clause, as Mr. Freidin referred to
15 this morning, in the FMA agreement which relates to the
16 lesser cost regeneration treatments?

17 A. Yes, that is correct.

18 Q. And am I correct that a silvicultural
19 failure for conifers is based on an assessment of
20 whether the FMA holder has met the 40 per cent stocking
21 requirement?

22 A. That's correct.

23 Q. Just a question of clarification, Mr.
24 Squires, then. In your view, why then is the objective
25 stocking standard included in the groundrules?

1 A. The objective stocking standard was
2 included in the Spruce River Forest groundrules in the
3 first five-year period; I think you will see it's
4 absent in the second five.

5 At the time it was put in, the first
6 five, the intent was to look at the stocking that would
7 provide the maximum merchantable volume on that area.
8 So that was our objective, to get the maximum
9 merchantable volume.

10 Q. And, Mr. Squires, would you agree
11 that with full-tree harvesting you reduce your ability
12 to meet an objective stocking standard for conifers
13 because the natural seed source is removed?

14 A. No, I would not.

15 Q. And why not?

16 A. My experience has been on the Spruce
17 River Forest that we have been getting as good or
18 better stocking from full-tree logging than we have
19 with tree-length.

20 Q. And, in your view, is that linked at
21 all to the form of site preparation or the extent to
22 which site preparation is carried out?

23 A. On some sites, yes; on some sites,
24 no.

25 Q. Okay. I wanted to ask you a couple

1 of questions in relation to stocking, but it's in
2 relation to case study 4B, so perhaps Mr. Nicks could
3 assist me.

4 If you could turn again to the
5 silvicultural specifications, Table 1. Now, on the
6 second page of Table 1, Mr. Nicks, the heading on the
7 left-hand side under the first column says Present
8 Working Group - Jack Pine.

9 MR. NICKS: A. Mine says inventory
10 working group.

11 Q. Oh, I am sorry. I seem to be the
12 only one on the wrong page. I apologize. Sorry.

13 If you turn to the first page of Table 1,
14 case study 4B, the inventory working group is jack pine
15 and the proposed working group is jack pine as well; is
16 that correct?

17 A. That's right.

18 Q. Now, if in this situation after
19 harvest you ended up renewing these particular sites
20 to, say for example, 60 per cent aspen and 40 per cent
21 jack pine, am I correct that you would have met your
22 minimum stocking standards?

23 A. To jack pine?

24 Q. Yes.

25 A. That's correct.

1 Q. And am I also correct that you would
2 have, however, failed in terms of achieving the
3 - proposed working group which would be jack pine?

4 A. At the moment, no, it depends on the
5 dominance of the species and the working group
6 designation is made at the time of the free to grow
7 survey, and at that time the relative dominance of
8 aspen versus jack pine is assessed by the MNR and if
9 jack pine is judged to be essentially free from
10 competition from aspen, then even though the aspen
11 stocking is higher it would be considered to be a jack
12 pine working group.

13 Q. And so your view would be that even
14 though the aspen stocking would be higher that the
15 stand would not go into the FRI as aspen?

16 A. Well, that judgment, as I say, would
17 have to be made at the time of the free to grow survey
18 and it would have everything to do with the relative
19 dominance or lack of dominance by the aspen of the jack
20 pine. I think if the aspen at that time were to
21 dominate the jack pine height-wise, then the aspen
22 could go into an aspen working group, hence the need
23 for a tending program.

24 Q. All right. So there is a potential
25 then in that scenario that you could, although you

1 achieved your minimum stocking standards, you could end
2 up in the next FRI with a change in working group based
3 on the dominance at the free to grow stage?

4 A. It's a possibility, yes.

5 Q. Okay.

6 A. One we are very aware of and taking
7 steps to prevent through tending.

8 Q. Now, is there any -- now, you have
9 said this is something you are very much aware of and
10 steps have to be taken in the tending program to deal
11 with it, to deal with this potential problem?

12 A. (nodding affirmatively)

13 Q. Okay. Would you see any value in
14 assigning a minimum stocking standard of, say, 50 per
15 cent in those situations?

16 A. No, I don't see any particular value.
17 I think it has more to do with the relative height of
18 the two species than an increase in stocking. If the
19 height of the poplar is three times that of the jack
20 pine, even if the jack pine were a hundred per cent
21 stocked, you would still have the potential for a
22 transition to a poplar working group without tending.
23 So the key element here is size of relative species.

24 Q. And in the situation where you are
25 not able to, for whatever reason, deal with the problem

1 at the tending stage and you do end up having a jack
2 pine stand going back into the FRI as poplar, is this
3 at all considered a silvicultural failure?

4 A. Well, it's a failure of a sort in
5 that the investment has not been realized, the return
6 has not been realized on the investment. Poplar may
7 well be suited to the site and may well provide a
8 commercial crop, it may well develop into a mixed wood
9 with a jack pine component, but I think in terms of
10 protecting the public investment and our own investment
11 in that site, the low cost of the tending treatment is
12 well justified at this time.

13 Q. So in your view it would be important
14 to protect that initial investment by proceeding with
15 the low cost tending treatment?

16 A. Well, by low cost I mean aerial
17 herbicide applications, relatively low cost in
18 comparison with the amount of money invested previously
19 in site preparation and stock production and planting
20 on these types of sites.

21 Q. That's right. Excuse me for a
22 moment.

23 Mr. Nicks, sticking with you for a
24 moment, could you turn to the Panel 8 witness statement
25 which is Exhibit 1137 and, in particular, page 123.

1 Now, based on the analysis of the 16 FMAs
2 you have concluded that renewal for softwood working
3 groups has been 96 per cent successful by artificial
4 means and 63 per cent successful by natural means, and
5 you have also provided a further exhibit that shows a
6 breakdown with respect to the natural regeneration.

7 But just dealing with the artificial
8 regeneration statistic for a moment, during the
9 Ministry's case we saw some evidence in relation to the
10 success of artificial regeneration.

11 MS. SEABORN: And these, Madam Chair,
12 were contained in Panel 4 which was the wood supply
13 panel presented by MNR.

14 Q. And, Mr. Nicks, do you have a copy of
15 the Panel 4 evidence in front of you?

16 MR. NICKS: A. MNR's Panel 4?

17 Q. Yes, MNR's Panel 4. Perhaps Ms.
18 Cronk could provide you with...

19 Now, I don't know whether you will be
20 able to answer this for me or not, Mr. Nicks, but if
21 you turn to page 132 of MNR's Panel 4 witness statement
22 there is some figures that were presented by Mr. Dixon
23 in a report that is known as the Dixon Report dated
24 1982. Are you familiar with this report?

25 A. Vaguely. I may have glanced at it

1 years ago.

2 Q. Now, if you look at say, for example,
3 under jack pine under the column F on page 132 there is
4 a reference that F equals failure, and then there is
5 percentages underneath that figure.

6 Now, do you have any view as to why the
7 failure rate is so much lower in your statistics than
8 the failure rate for artificial regeneration that is
9 provided by Mr. Dixon?

10 MS. CRONK: I have some difficulty, Madam
11 Chair, with any questions on the Dixon Report until the
12 witness has a chance to look at it.

13 I heard Mr. Nicks say that he looked at
14 it vaguely he thought. What I wrote down, I may have
15 glanced at it say vaguely a few years ago.

16 I don't object to questions, but I do
17 think he should be given a chance to look at it before
18 he answers.

19 MR. NICKS: More specifically, I don't
20 recall seeing this table, I am afraid.

21 MS. SEABORN: Q. Well, I could do two
22 things, Mr. Nicks. If you would like to review the
23 whole report over lunch, I am not going to finish
24 before 11:30, we would come back to it; alternatively,
25 I could ask you one further question and perhaps then

1 before you answer have an opportunity, if your counsel
2 objects to answering that question, and perhaps we can
3 come back to it after lunch.

4 MADAM CHAIR: Let's try the next
5 question, Ms. Seaborn.

6 MR. FREIDIN: Madam Chair, I am not sure
7 whether it would be helpful, but if Ms. Seaborn has
8 some proposition as to why there is difference, it
9 might be more helpful to the witness and to everyone
10 here if she could put the proposition as to why there
11 is a difference and the truth or the lack of accuracy
12 of that statement could be looked at, rather than have
13 him go through the whole report.

14 And if the proposition is agreed to, then
15 she can call evidence in her own case to substantiate
16 the proposition she made.

17 MADAM CHAIR: Is that your second
18 question, Ms. Seaborn?

19 MS. SEABORN: No, but I will respond to
20 Mr. Freidin, and for the benefit of Ms. Cronk and the
21 Board, no, I have no proposition to put forward as to
22 why the numbers are different.

23 Having reviewed the MNR evidence I was
24 interested in the Industry's statistics as to the
25 success of artificial regeneration versus what we saw

1 presented by the Ministry in the form of the Dixon
2 Report, and what I am asking Mr. Nicks is whether he
3 has any explanation for the difference in the figures.

4 I don't have the answer. And Ms. Cronk
5 has said she would prefer that you review the report
6 prior to responding to that.

7 MS. CRONK: I have to say, Madam Chair,
8 it has been some months since I looked at the Dixon
9 Report myself. I don't even remember how long it is,
10 and I have given my only copy to Mr. Nicks.

11 So it may be physically possible to
12 review over the noon hour, it may not, but I understood
13 Ms. Seaborn to say that she had a second question that
14 she might ask that might help us through this.

15 MS. SEABORN: Sure, okay.

16 Q. Well, rather -- the second question
17 is very simple and, that is: Looking at the numbers
18 under F for failure, can you confirm for me that the
19 failure rate in the Dixon Report is substantially - I
20 will take out the word substantially - the numbers in
21 the Dixon Report for the failure rate as to artificial
22 regeneration are different from the numbers that you
23 have put forward?

24 MS. CRONK: Well, again --

25 MS. SEABORN: There is a difference

1 between them, that's all I am saying.

2 MS. CRONK: Again, Madam Chair, we have
3 the difficulty. I am going to have to suggest that the
4 witness be given a chance to look at it.

5 MADAM CHAIR: Okay. Let's have Mr. Nicks
6 look at it over lunch. Ms. Seaborn, can you provide
7 some direction to Mr. Nicks. Is this area the area Mr.
8 Nicks is working on that is reported in the Dixon
9 Report?

10 MS. SEABORN: The Dixon Report, I
11 believe -- I can't answer that right off the bat as to
12 the geographic area analysed by the Dixon Report.

13 MADAM CHAIR: Are there specific pages
14 you would refer Mr. Nicks to?

15 MS. SEABORN: That is the only question I
16 have for Mr. Nicks in relation as to whether -- if he
17 doesn't know why there is a difference between the
18 two -- the renewal statistics that he's put forward
19 and what's in the Dickson Report, then that is fine, he
20 can tell me that he doesn't know. That is the only
21 question I have on the area.

22 MADAM CHAIR: Would you like an
23 opportunity to look over that at lunch, Mr. Nicks?

24 MR. NICKS: Yes, I would, Madam Chair.

25 MADAM CHAIR: Okay.

1 MS. SEABORN: Q. Now, Mr. Nicks, could
2 we turn for a moment to Exhibit 1146, which is Ministry
3 of Environment Interrogatory Question 11.

4 MR. WADDELL: A. Panel 4 or Panel 8?

5 Q. I'm sorry, Panel 8. And there were
6 two responses given with respect to Question 11, Ms.
7 Cronk filed last week a subsequent response and that
8 subsequent response was filed as Exhibit 1146.

9 MS. CRONK: Do you have it, Mr. Nicks?

10 MR. NICKS: Yes, I have the...

11 MS. SEABORN: Was the Board able to
12 locate that exhibit?

13 MADAM CHAIR: We have got one copy. Oh,
14 we have got two copies.

15 MS. SEABORN: Thank you.

16 Q. Now, in reference to page 123 which
17 we have just looked at, we had asked:

18 "What are the factors that resulted in a
19 lower success rate for regeneration by
20 natural methods."

21 And the supplementary response was filed
22 last week. And I take it, Mr. Nicks, that based on
23 this response that the major factor, in your view, was
24 a lack of site preparation; is that a fair summary of
25 the response?

1 MR. NICKS: A. Certainly in the case of
2 jack pine, although there are other factors involved
3 with black spruce such as adequate seed sources.

4 Q. Right. There was a factor that you
5 had included with respect to the spruce budworm
6 problem?

7 A. That's correct.

8 Q. And other than the spruce budworm
9 problem then, would it be fair to say that for black
10 spruce, again, what you were most concerned about was a
11 lack of site preparation?

12 A. That's correct.

13 Q. Now, if we return to page 123 again
14 of the Panel 8 evidence, under paragraph 2 you had been
15 speaking about artificial regeneration and you went on
16 to say that:

17 "This is particularly true for softwood
18 working groups, the renewal of which has
19 been 96 successful by artificial means
20 and only 63 per cent successful by
21 natural methods."

22 Then you go on to say that:

23 "Continued and possibly expanded
24 investments in planting and direct
25 seeding would therefore appear to be

1 necessary where site conditions, seed
2 supply and access permit."

3 Now, based on the interrogatory response
4 that we just looked at, would you agree with me that if
5 you could increase your site preparation efforts on the
6 black spruce and jack pine sites and left those for
7 natural regeneration, you could improve your success
8 rate without employing artificial regeneration methods?

9 A. As a jack pine manager principally I
10 would disagree with that proposition for jack pine. I
11 think that, certainly in my experience, no amount of
12 site preparation is going to improve the effectiveness
13 of natural regeneration certainly in our area of
14 management.

15 As for the black spruce, I think that
16 question can really only be answered on an individual
17 management unit basis by the managers themselves in
18 terms of the opportunities that they foresee, the
19 opportunities which would be provided by an increased
20 level of site preparation to enhance natural
21 regeneration.

22 Q. Did you prepare, Mr. Nicks, the
23 response to this interrogatory?

24 A. Yes, I did.

25 Q. Then I guess where I am having

1 trouble is that I had gleaned from this interrogatory
2 response that, in your view, if there were more site
3 preparation you could in fact increase your success
4 rate for regeneration, but what I hear you saying now
5 is that would be inappropriate?

6 A. Well, no, what I am saying is that I
7 formulated the response on the basis of questionnaires
8 to the managers who provided the original data that
9 went into Table 3 on page 124 and this is a synopsis of
10 their comments in terms of why they have observed lower
11 success with natural regeneration.

12 It perhaps is fair to say that on the
13 basis of the evidence here that some improvements in
14 natural regeneration success could be achieved through
15 enhanced site preparation, but I think that a
16 considered estimate of the amount of area involved
17 again should be -- can only be obtained by posing that
18 question to the particular managers that are having the
19 operational problems.

20 I really can't comment on the degree of
21 improvement in terms of the area.

22 MR. GEMMELL: A. Well, Ms. Seaborn, if I
23 could just add regarding black spruce. We have to be
24 very specific about the areas we are dealing with, and
25 that the success of the black spruce in natural

1 regeneration in our area is substantially higher than
2 the 63 per cent, in fact it's 85 per cent or better,
3 and I for one wouldn't want to recommend site
4 preparation to improve the renewal on the low sites of
5 the black spruce. So it's very site-specific.

6 Q. I understand that, and it just
7 appeared to me, Mr. Gemmell and Mr. Nicks, that in
8 reading the evidence it had been my understanding that
9 what you are advocating in order to overcome a lower
10 success rate with respect to natural regeneration was
11 expanded investments in planting, and then based on
12 this interrogatory response which I gather Mr. Nicks
13 you said you received this information from the various
14 managers, it appeared to us that you could also improve
15 your natural regeneration success rate by investing
16 more funds in site preparation.

17 MR. NICKS: A. That's a possibility. As
18 I say, it's species specific. I don't see it as an
19 option in jack pine at all. It may be an option in
20 black spruce as well.

21 MR. SQUIRES: A. May I speak to that?

22 Q. Sure, Mr. Squires.

23 A. What Mr. Nicks is referring to, and I
24 think he said it himself, he said in his particular
25 area with jack pine. Of course, jack pine covers a

1 very wide variety of sites across the area of the
2 undertaking. In my area, site preparation on area left
3 for natural for jack pine, it would certainly improve
4 the stocking for natural.

5 Q. Thank you, Mr. Squires.

6 MS. SEABORN: Madam Chair, it's getting
7 close to 11:30. I am about to start a new area, and I
8 would estimate that after the lunch break I should be
9 finished in an hour or so.

10 MADAM CHAIR: All right. If this is a
11 convenient time for you, Ms. Seaborn, then we will have
12 you stand aside. And, Ms. Swenarchuk?

13 Ms. Cronk, would you like me to excuse
14 the panel?

15 MS. CRONK: I'd be delighted, if that's
16 acceptable to the Board.

17 MADAM CHAIR: Thank you, panel. You can
18 stay if you wish, but we are going to be hearing some
19 other business here and we will be breaking for lunch
20 around noon and we will be back at 1:30.

21 Thank you.

22 --- (Witness panel withdraws)

23 --- Discussion off the record

24 MS. SWENARCHUK: Good morning, Madam
25 Chair, Mr. Martel.

1 As you can see, I have provided an
2 outline of the subject areas and schedule for delivery
3 of witness statements for Forests for Tomorrow. I have
4 a number of comments that I hope will be of assistance
5 to the Board with regard to them. I am referring, as I
6 do so, to the Board's order of April 19th. I propose
7 to provide this schedule by mail to all full-time
8 parties as well.

9 Now, Madam Chair, as you can see we have
10 staged the delivery of witness statements between July
11 9th and September 17th of this year. I would like to
12 emphasize that with the exception of the July 9th date,
13 which is fixed in your order and will be the date by
14 which the first witness statement is delivered, that
15 the other dates are approximate in the sense that the
16 witness statements will be delivered at approximately
17 that time.

18 We've specified in the Board order that
19 the last statement should be delivered by September
20 28th and that will certainly be the case. As you can
21 see, we are aiming to deliver them somewhat earlier
22 than that. This is our goal, but there may be some
23 variation.

24 When we discussed this matter last, and I
25 think this is reflected in your order, I had considered

1 that in counting the 60-day time period referred to in
2 the previous order that holidays were to be excluded.
3 In fact, as I look now again at Section 7(b) of the
4 Board's Rules, holidays are included in the calculation
5 of numbers of days over seven and, therefore, I
6 considered that this schedule does in fact comply with
7 the need for witness statements to be delivered --
8 commence delivery 60 days before the last party in
9 support who will be heard, according to the draft
10 submitted, September 11th and 12th.

11 I do want to remind the parties, as I am
12 sure they will understand, that this is a tentative
13 schedule. The case development is ongoing, it's
14 unlikely to change significantly, but there could be
15 some change in it.

16 Mr. Huff reminds me that I neglected to
17 provide a date for delivery of the site visit outline
18 and schedule and that will be done certainly at least
19 60 days before the planned date of that visit, that
20 date I believe is in the last week of September.

21 Now, with regard to the Board's order and
22 the issue of lay witnesses, my fellow counsel convinced
23 me that it is appropriate to provide witness statements
24 for lay witnesses and that, therefore, has formed part
25 of this schedule and those will be provided as I

1 indicate around July the 16th.

2 Now, since the Board has indicated some
3 interest in this question, I could indicate now that we
4 expect to have eight to 10 lay witnesses. These will
5 be individuals who will not be presenting opinion
6 evidence to the Board but rather factual evidence based
7 on information, observations particular to them.
8 Issues will include environmental impacts of harvest,
9 impacts of road construction, impacts in those contexts
10 of erosion on natural values and parks, on aquatics, on
11 tourisms and there may also be some testimony regarding
12 the waste of wood.

13 I estimate time for direct evidence for
14 these witnesses to vary from about two hours for some,
15 to a half day for others, to possibly up to one day in
16 regard to some of them; most however tending to be
17 approximately a half day.

18 MADAM CHAIR: Excuse me, Ms. Swenarchuk.
19 Will the lay witnesses form one segment of evidence?

20 MS. SWENARCHUK: Yes.

21 MADAM CHAIR: Or are they throughout the
22 case?

23 MS. SWENARCHUK: No, we expect to put
24 them on in succession.

25 MADAM CHAIR: All right, thank you.

1 MS. SWENARCHUK: And would just add that
2 with regard to the last panel of evidence we are
3 proposing, Panel No. 10, that in addition to that panel
4 dealing with timber management planning there will also
5 be material in it regarding the future of this
6 environmental assessment and our proposals for future
7 environmental assessment of timber management planning
8 as the parties have seen reflected in our terms and
9 conditions.

10 Now, I have one additional matter to
11 raise with regard to evidence. Those were my comments
12 on our schedule. Should the Board have questions, I
13 would be pleased to respond.

14 MADAM CHAIR: Ms. Swenarchuk, are you
15 presenting your evidence in the way that we have seen
16 to date, where we have an area of evidence, we complete
17 it and we move on, or are you looking at --

18 MS. SWENARCHUK: Largely it will be.

19 MADAM CHAIR: And it follows this
20 outline?

21 MS. SWENARCHUK: That's right. Largely
22 it will be in that format, although of course there
23 will be some overlap between witnesses on some of these
24 issues.

25 Now, to turn to the other issue. Many

1 moons ago on February 22nd of 1989 I indicated to the
2 Board that we may be making a request of the Board to
3 call as a witness an American expert on wildlife
4 management, one Jack Roy Thomas, whose name has been
5 frequently referred to in the hearing.

6 I wonder if we could set a date now on
7 which we could raise that matter with the Board, and I
8 am suggesting May 29th at five o'clock which would be
9 the week that the Board reconvenes in Toronto after the
10 satellite hearing.

11 MADAM CHAIR: And what is it that you
12 wish to discuss?

13 MS. SWENARCHUK: I wish to discuss the
14 possibility of the Board calling Mr. Thomas as a
15 witness in the hearing.

16 MADAM CHAIR: He's an employee of...?

17 MS. SWENARCHUK: The U.S. Forest Service.

18 MADAM CHAIR: And requires an invitation?

19 MS. SWENARCHUK: That's right.

20 MR. FREIDIN: Are you asking that the
21 Board call him as a witness or that the Board issue a
22 subpoena so you can call him?

23 MADAM CHAIR: I don't think the Board
24 would issue a subpooena.

25 MS. SWENARCHUK: Frankly that is an issue

1 too to be discussed, as to exactly - as we have done
2 with Dr. Baskerville - as to who would call him, who
3 would lead the direct examination.

4 MR. FREIDIN: Can you indicate -- I'm
5 sorry, Madam Chair.

6 MADAM CHAIR: Go ahead, Mr. Freidin.

7 MR. FREIDIN: I'm just wondering if you
8 could suggest what your proposition is going to be, or
9 are you going to circulate something, or do you have a
10 specific proposition in relation now to what you've
11 dealt with so that we can review it in advance of the
12 29th so we can respond to your proposition, Ms.
13 Swenarchuk?

14 MS. SWENARCHUK: Yes. I believe our
15 proposition will be to request that the Board call him.

16 MS. CRONK: As a Board expert?

17 MS. SWENARCHUK: Yes.

18 MADAM CHAIR: Mr. Martel reminds, Ms.
19 Swenarchuk, that the week of the 29th - we discussed it
20 this morning - given that we couldn't sit yesterday and
21 given all the scheduling problems with Panel 7--

22 MS. SWENARCHUK: Yes.

23 MADAM CHAIR: --that that week is going
24 to be very full. We expect to start sitting Monday and
25 sit five days that week, if need be, to finish Panel 7.

1 MS. SWENARCHUK: I see.

2 MADAM CHAIR: You are suggesting that we
3 discuss this matter at the end of that week on the
4 Friday? Is the 29th --

5 MS. CRONK: Tuesday.

6 MS. SWENARCHUK: No, I believe the 29th
7 is a Tuesday.

8 MADAM CHAIR: Is the Tuesday. Would it
9 make any difference to put that off to the next week?

10 MS. SWENARCHUK: I don't think so.

11 MADAM CHAIR: Is that satisfactory to
12 you?

13 MS. SWENARCHUK: Yes, it is.

14 MADAM CHAIR: Let's do it the Tuesday
15 night of the following week. I don't know what date
16 that is.

17 MR. FREIDIN: Madam Chair, can I ask that
18 Ms. Swenarchuk advise counsel in advance of the reasons
19 that she thinks it's appropriate for the Board to call
20 this witness as a witness as opposed to having Forests
21 for Tomorrow call that witness as a witness.

22 We have heard all kinds of evidence from
23 wildlife experts, we will hear more. She is singling
24 out this one individual somehow as it being appropriate
25 that this person be dealt with differently.

1 I would certainly like to know why that
2 is the case, and I would like to know that in advance
3 of being asked to respond to her position.

4 - MADAM CHAIR: Will this come by way of
5 formal notice, Ms. Swenarchuk, or a motion?

6 MS. SWENARCHUK: As you wish, it can be
7 by notice. I can simply write a letter to all parties
8 indicating our position. As you wish.

9 MADAM CHAIR: I think it would be helpful
10 and then the parties could come prepared that evening
11 at five.

12 MS. CRONK: That would be Tuesday, June
13 the 5th then, Madam Chair, at five.

14 MADAM CHAIR: Yes, June the 5th, thank
15 you.

16 MS. SWENARCHUK: Those are my
17 submissions, Madam Chair.

18 MADAM CHAIR: Thank you very much, Ms.
19 Swenarchuk.

20 MR. FREIDIN: Madam Chair, I have a
21 number of questions.

22 The amount of information here -- in my
23 view it has to be augmented for the Ministry of Natural
24 Resources to properly prepare to deal with the
25 evidence. The information here is helpful, but I am

1 not asking for a lot of detail, but I do have a number
2 of questions which would be of assistance, and if I
3 might, I would like to ask for that information now.

4 MADAM CHAIR: All right. If Ms.
5 Swenarchuk has that information, perhaps she can answer
6 your questions.

7 MS. SWENARCHUK: Does that have to be
8 done on the record, or could this be a discussion off
9 the record, Mr. Freidin?

10 MR. FREIDIN: Well, I think maybe the
11 information might be useful to all parties. We are not
12 scheduled to have our lunch break until twelve o'clock.
13 I don't think it would take longer than that.

14 It might be useful information for
15 everybody, Madam Chair, as opposed to just a
16 discussion --

17 MADAM CHAIR: Well, let's hear some of
18 your questions, Mr. Freidin. If we think that it's
19 specifically of interest to your client, then you can
20 discuss that with Ms. Swenarchuk.

21 MR. FREIDIN: All right. Firstly, again
22 I must tell you, one of the reasons I am doing this is
23 that we have people we assign to review the statements
24 and we have to have some idea of the nature of them so
25 that we can organize ourselves.

1 I am just wondering if she could provide
2 some indication of what the differences are between
3 Panel 1 which are the ecological impacts of timber
4 management activities and Panel 4 which, in addition to
5 dealing with wood supply, deals with environmental
6 impacts of timber management. If there is a
7 difference, perhaps she could indicate what the
8 differences are so we could --

9 MS. SWENARCHUK: The differences are that
10 Panel 1 will be a panel of scientific evidence having
11 to do with the scientific literature, and Panel 4 will
12 be more on-ground data and operational information.

13 MR. FREIDIN: So will the Panel No. 1
14 then, dealing with scientific literature, deal with
15 the -- well, the Ministry has dealt with the potential
16 environmental impacts on various parts of the
17 environment: the aquatic, the terrestrial, I think
18 wildlife, soil productivity.

19 Is Panel No. 1 then going to do a review
20 of literature through experts of all of those areas,
21 all those effects?

22 MS. SWENARCHUK: It will be primarily
23 terrestrial.

24 MR. FREIDIN: And by terrestrial you are
25 including wildlife and soil, or just wildlife?

1 MS. SWENARCHUK: Not wildlife. Wildlife
2 matters will be dealt with in Panel 8.

3 MR. FREIDIN: So then it will deal with
4 terrestrial, being soil productivity. This is where we
5 are going to have the discussion about full-tree
6 harvesting, nutrient cycling and that sort of thing?

7 MS. SWENARCHUK: That's correct.

8 MR. FREIDIN: Is anything else included
9 in terrestrial? I know we will get more details when
10 we see the statement, but just in a general way? I
11 mean, now I know what --

12 MS. SWENARCHUK: All the scientific
13 issues having to do with ecological impacts of timber
14 management on the land base will be part of that panel.
15 I don't want to sit here and try to recite evidence. I
16 am sure your scientists will understand.

17 MR. FREIDIN: The aquatics -- I don't
18 deal with aquatics in Panel 1?

19 MS. SWENARCHUK: That's right.

20 MR. FREIDIN: In relation to Item No. 4,
21 if it's going to be dealing with -- this is
22 on-the-ground actual situations, I take it then the
23 witness statement will give us an advance indication as
24 to where those specific locations are?

25 MS. SWENARCHUK: That's right.

1 MR. FREIDIN: In terms of Item No. 4, the
2 environmental impacts of timber management. Again,
3 those are actual situations. Is that again stressing
4 the effects on terrestrial as opposed to wildlife?

5 MS. SWENARCHUK: Yes. There will be
6 probably some wildlife component, but rather minimal.

7 MR. FREIDIN: In relation to timber
8 management planning, can you advise us whether you will
9 be relying on any plan or portion of a plan either from
10 Ontario or other jurisdictions so we can review same in
11 advance?

12 MS. SWENARCHUK: Yes. That is not
13 information that I have at the moment, I wouldn't be
14 able to provide you with plans that we would be
15 considering, but we will.

16 MR. FREIDIN: And I would ask that you
17 provide that to us in advance of the witness statement
18 which is September the 17th. The earlier we get that
19 information the better -- can you indicate when you
20 expect you will be able to provide us with that
21 information?

22 MS. SWENARCHUK: Probably in July, Mr.
23 Freidin.

24 MR. FREIDIN: Thank you.

25 Now, the economic issues in Item No. 7.

1 We have led evidence on the economics on a broad scale,
2 we also led evidence throughout the various panels of
3 how economic plus financial factors come into play in
4 making silvicultural decisions. Are both those areas
5 going to be canvassed under Item No. 7?

6 MS. SWENARCHUK: Yes, I expect so.

7 MR. FREIDIN: All right. Anything else
8 other than that that you can think of now?

9 MS. SWENARCHUK: Well, there will be of
10 course reply and commentary on the economic and
11 socio-economic evidence that has been provided to date.
12 It will be fairly broad.

13 MR. FREIDIN: Okay, thank you.

14 MS. CRONK: Two questions, Madam Chair.

15 MADAM CHAIR: Yes, Ms. Cronk.

16 MS. CRONK: First, now that Ms.
17 Swenarchuk has provided the outline of these panels,
18 has her time estimate for the entire length of her
19 case, as she is best able to estimate it today,
20 changed; and whether it has or not, what is it?

21 MS. SWENARCHUK: I find it very difficult
22 to answer, just given the variation in time in the
23 Industry's case and the Ministry's case.

24 I would dearly love to finish by
25 Christmas. We recognize that we have approximately a

1 maximum of 20 days of direct evidence here. Because,
2 Ms. Cronk, of my lack of knowledge of the time to be
3 taken in cross-examination by other parties, I really
4 find it difficult to answer that question. I would
5 certainly hope that we could finish by the end of
6 January, if not the December date.

7 MS. CRONK: And when do you assume you
8 will start?

9 MS. SWENARCHUK: October 2nd as
10 previously determined.

11 should say 20 to 30 days in direct
12 evidence, given the variation probably in the length of
13 evidence from the lay witnesses.

14 MS. CRONK: And then secondly, Madam
15 Chair, with respect to Panel No. 7, economic issues in
16 timber management and the question that Mr. Freidin
17 just put to Ms. Swenarchuk, just a clarification.

18 Did I understand you to say that you are
19 dealing with socio-economic issues in that panel as
20 well; and, if so, did you mean to say that?

21 MS. SWENARCHUK: Well, I think there is
22 an overlap in the term. It's not our intention, for
23 example, to provide socio-economic evidence in the form
24 of that was provided by the Ministry in its case.

25 - There certainly will be some evidence relating to, for

1 example, the socio-economic data presented in the
2 Industry's case.

3 MS. CRONK: Thank you, Madam Chair.

4 MADAM CHAIR: Are there any other
5 questions to Ms. Swenarchuk about the schedule?

6 MS. CRONK: Our clients may have some,
7 Madam Chair, but I will have to get instructions after
8 they have seen that.

9 MADAM CHAIR: Thank you very much.

10 MS. SWENARCHUK: Thank you.

11 MADAM CHAIR: We will adjourn for lunch
12 and we'll be back at 1:30.

13 ---Luncheon recess taken at 11:50 a.m.

14 ---On resuming at 1:30 p.m.

15 MADAM CHAIR: Please be seated.

16 Ms. Seaborn?

17 MS. SEABORN: Thank you, Madam Chair, Mr.
18 Martel.

19 CONTINUED CROSS-EXAMINATION BY MS. SEABORN:

20 Q. Mr. Squires, I would just like to
21 deal with a response that you gave just before the
22 lunch break. There was a discussion about the extent
23 to which site preparation may improve natural
24 regeneration success and you offered a comment with
25 respect to jack pine.

1 In terms of jack pine, would you agree
2 that you could improve your natural regeneration
3 success with site preparation only in the event that
4 you had not full-tree harvested?

5 MR. SQUIRES: A. I would have to say I
6 really don't know, I haven't got the experience that
7 would extend it to that degree.

8 Q. Okay, thank you.

9 Mr. Nicks, perhaps we could deal with the
10 issue that we looked at this morning in relation to the
11 Dixon Report.

12 MR. NICKS: A. Yes.

13 Q. Have you had an opportunity to review
14 that report over the lunch?

15 A. No, I haven't, but I am not sure that
16 it's really necessary because, if my interpretation of
17 the Ministry's evidence from Panel 4 is correct, I
18 think I can offer an opinion.

19 Q. Sure. Go ahead, please?

20 A. Okay. From reading the Ministry's
21 evidence of Panel 4, I have two comments I would like
22 to make, first of all about the use of the Dixon
23 Report, and here I am quoting from page 52 of the MNR's
24 Panel 4 witness statement where the Ministry has said:

25 "The data summarized in Table 26 do not

1 cover all regions and moreover only cover
2 the initial year (1973) being reviewed in
3 this report."

4 So the point that is made here and that
5 should be considered is, this is a limited set of data
6 which may or may not correspond to the same land base
7 that the Industry assessed in deriving its table. And
8 again, it only covers one year of assessment, so there
9 is some limitation there.

10 The second point I would like to make is
11 that from page 55 of MNR's panel 4, and again I quote:

12 "This latter study (i.e. the Dixon
13 Report), however, shows a much higher
14 proportion of areas classed as failures.
15 These are surprisingly high for the
16 planting of bareroot and container
17 stock."

18 And my conclusion from that is that if
19 the MNR themselves admitted that these were atypical
20 results in their opinions, that by extension the
21 Industry results which are somewhat higher may perhaps
22 be considered to be normal results.

23 Q. Thank you.

24 A. And so those are two general comments
25 on the Dixon Report.

1 Now, to answer your specific question as
2 to the relative failure rates of, as outlined in the
3 Table 26 found on page 55 -- I'm sorry, it's actually
4 page 132 of the Panel 4 statement of evidence which you
5 directed me to initially.

6 As you know, the treatments for
7 artificial regeneration are broken down by category
8 into planting of bareroot stock, planting of container
9 stock, and seeding, and if one were to take a straight
10 line average of those three figures shown - which is
11 all one can do because the areas of each treatment are
12 indicated - one could hypothetically end up with 17 per
13 cent as a straight line average rate of failure,
14 contrasted with our weighted average result for
15 artificial treatments to softwood which was about a 4
16 per cent rate of failure; in other words, 100 per cent
17 minus 96 per cent success is 4 per cent.

18 So again, somewhat loosely it looks like
19 we are comparing 17 per cent from the MNR's data to a 4
20 per cent failure rate from ours and your question is
21 why is that difference?

22 Q. Yes.

23 A. Well, again assuming that the 17 per
24 cent is somewhat reliable, there are three reasons I
25 point to. In the 20 years since the MNR initiated

1 these treatments - and I would point out that these
2 were treatments between the years 1968 and 1973 - that
3 there has been a considerable improvement in the
4 quality of seed and the quality of nursery stock that
5 is available to both Crown and FMA managers, and some
6 examples would be: improvements in the type of
7 container, the size of the container, the use of cold
8 storage facilities for bareroot stock and now for
9 containers in some areas, the use of short-day dormancy
10 induction treatments in black spruce container stock to
11 ensure that the stock goes into the winter in a hearty
12 condition with a large number of needle primordia in
13 each bud which enhances growth. So that's my first
14 point, there has been major improvement in stock and
15 seed quality in 20 years.

16 The second reason that I would see for
17 this difference is that there is a far higher amount of
18 tending done today relative to the amount of area
19 artificially regenerated than was done 20 years ago
20 with more effective herbicides than were available 20
21 years ago. I believe 20 years ago most treatments were
22 done with 2,4-D and/or 2,4,5-T; now we have the use of
23 glyphosate which is much more effective.

24 And the third reason for the difference
25 would be an improved silvicultural knowledge base on

1 the part of individual managers which, in our opinion,
2 has led to a more accurate matching of prescriptions to
3 sites on the basis of observational experience and
4 assessment of databases.

5 So those would be the three reasons that
6 I would offer to your question.

7 Q. Thank you, Mr. Nicks, that is
8 helpful.

9 And, Mr. Nicks, would it be fair to say
10 from what you told me with respect to the three major
11 reasons that, in Industry's view, you are doing a
12 better job today in terms of artificial regeneration
13 than was the experience in the past; is that a fair
14 overall summary?

15 A. Well, I think to be fair to MNR, I
16 think they are doing a better job than they did in the
17 past; I think we are doing a better job than we did in
18 the past when we were involved with renewal, everyone's
19 doing better.

20 Q. I accept that qualifier, thank you.

21 Mr. Nicks, there has been some discussion
22 earlier today and over the last week or so that
23 generally lower site classes left to natural
24 regeneration are more prone to failure. Would you
25 agree with that proposition?

1 A. Not necessarily. As Mr. Gemmell has
2 pointed out, some of the lower site classes are best
3 suited to natural regeneration, certainly in his areas,
4 so I don't think that you can make a categorical
5 statement that low site classes will regenerate to a
6 lower level of stocking.

7 Q. Okay. How about if we look at
8 outside the Clay Belt; would that be a fair statement?

9 A. Low sites as opposed to high
10 productivity sites?

11 Q. Yes.

12 A. Again it depends on the target
13 species. A highly productive site left for natural
14 regeneration -- highly productive upland site left for
15 regeneration may - likely will in my experience -
16 regenerate less well to softwood than would a low
17 productivity site left to natural regeneration.

18 For example, a shallow sandy soil over
19 bedrock would likely regenerate to higher component of
20 softwood, particularly black spruce and balsam fir,
21 than would a very fertile silt loam site. So it's a
22 complex issue.

23 Q. I understand that your evidence, that
24 really all the panel's evidence has been on this issue
25 that it is species specific, but would you agree that,

1 take for example in the case of artificial
2 regeneration, if you are artificially regenerating a
3 less productive site you are going to have a higher
4 chance of failure than artificially regenerating a
5 better site?

6 A. Well, again it depends totally on the
7 treatment. If the renewal were planting, I would not
8 suggest for a minute that the success rate would be any
9 lower on a -- necessarily any lower on a less
10 productive site than on a very rich site because the
11 competition factor would not be there.

12 If the treatment were direct seeding --
13 in neither case might it be successful: on the rich
14 site, competition might smother out the germinates; on
15 the poorer site, drought may kill them off.

16 So, again, it must be considered on a
17 specific site by site basis.

18 Q. And Mr. Nicks, could we look for a
19 moment at Exhibit 1157 which was the breakdown of
20 natural regeneration methods outlined in Table 3 that
21 you provided. It's Exhibit 1157, it's a one-page
22 sheet.

23 A. I have it, Ms. Seaborn.

24 Q. Now, I believe you said that a
25 harvest cut was a conventional clearcut with no further

1 treatment; is that correct?

2 A. Yes, I believe I was asked that
3 question by Ms. Swenarchuk.

4 Q. And were you excluding then
5 prescribed burns or other site preparation treatments?

6 A. In this case I believe that -- my
7 recollection is, at least, that they were not included.
8 This is simply -- the harvest cut it's simply cut and
9 leave for natural no subsequent treatments, and
10 scarification refers to mechanical only. I don't
11 believe there is any data in here relative to
12 prescribed burns.

13 Q. Okay. And so for the jack pine
14 harvest cut, looking under the first treatment type,
15 there was no subsequent site preparation or prescribed
16 burning, to your understanding?

17 A. No.

18 Q. And in terms of harvest cut, would
19 that be a full-tree harvest harvest method for jack
20 pine?

21 A. I can't answer that definitively, I
22 am not -- I don't think that the -- the survey on which
23 this data was based, companies were not asked to break
24 down the results according to the method of harvest,
25 no.

1 Q. So that information isn't taken into
2 account in these statistics in terms of harvest method?

3 A. No, it's difficult for me to say
4 whether it's inclusive of both methods or one only.

5 Q. And in terms of the harvest cut of
6 jack pine, assuming it was a full-tree harvest method,
7 would you agree that that particular prescription would
8 be more prone to failure when it's left for natural
9 regeneration?

10 A. Well, if I can speak from my own
11 experience and not about the numbers in this table,
12 because I don't understand the background to these
13 numbers specific to the harvest method, certainly in my
14 experience from our point of view, E.B. Eddy
15 operations, the probability of -- well, the probability
16 of natural regeneration occurring in either case is
17 low, unacceptably low.

18 However, should there be some disturbance
19 of mineral soil through the logging process and there
20 are cones remaining on the site within the slash, then
21 I think it's fair to say that the stocking would be
22 slightly higher on the tree-length area. But in my
23 experience, in neither case will the stocking be
24 adequate certainly to meet the minimum standards.

25 Q. All right. And would it be possible

1 to find out, with respect to this table, what the
2 - breakdown is in relation to harvest method for the
3 treatment types?

4 A. Not from the data that is available
5 to me.

6 Q. Would you be able to go back to the
7 people that assisted you in putting together this
8 document?

9 A. I don't think that they would be
10 readily able to provide that information based on their
11 recordkeeping system. I seem to recall an
12 interrogatory to that effect in terms of whether the
13 Industry kept information on the method of harvest by
14 block, and I think our answer was that, no, we don't.

15 Q. Now, Mr. Nicks, do you have in front
16 of you, please, Exhibit 534.

17 MS. SEABORN: Which was, Madam Chair, a
18 three-page exhibit that I asked Ms. Devaul to have
19 available to the Board, and I asked Ms. Cronk if she
20 could request that the witnesses review this exhibit
21 over the weekend.

22 MADAM CHAIR: 534A?

23 MS. SEABORN: Yes. There is three pages
24 marked A, B and C, it's entitled: Regeneration and
25 Harvest Levels 1980-81 to 1987-88.

1 Q. Now, Mr. Nicks this was an exhibit
2 that was introduced by Mr. Hynard in his
3 evidence-in-chief during the Ministry's renewal panel,
4 and Mr. Hynard advised that the statistics don't
5 exactly relate to the area of the undertaking, but in
6 his view it was so close that the graph accurately
7 depicts or portrays the regeneration scene in Ontario.

8 Now, the area in white was referred to by
9 Mr. Hynard as the cut and walk away area, and Mr.
10 Hynard defined it as that area that is harvested and
11 left to naturally regenerate without any intervention
12 by man.

13 And furthermore, you will see on the
14 bottom legend of Exhibit 534A there is a reference to
15 the white area as being natural regeneration and it's
16 to a non-preferred species, and that was what Mr.
17 Hynard told us was a commercially non-preferred
18 species.

19 Now, what I am interested in knowing, Mr.
20 Nicks, is in terms of the statistics on page 123 -- I'm
21 sorry, 124, Table 3.

22 Now, would these statistics include, for
23 the 16 FMAs, the areas that Mr. Hynard has identified
24 in the top graph as being areas that were harvested but
25 there was no intervention by man after the harvest and

1 would renew to a commercially non-preferred species?

2 MR. NICKS: A. Well, I guess for the
3 benefit of the Board it might be timely to point to an
4 interrogatory from Forests for Tomorrow in which we
5 answered this very question.

6 Q. Okay.

7 A. It's Question 32 part (a).

8 Q. Is this Panel 4 or Panel 8?

9 A. Panel 8.

10 MADAM CHAIR: Was that Exhibit 1154?

11 MS. CRONK: I don't think it's been
12 marked.

13 MS. SEABORN: I have it marked as 1155.

14 MS. CRONK: Sorry.

15 MADAM CHAIR: And which question?

16 MS. SEABORN: 32.

17 MADAM CHAIR: 32.

18 MR. FREIDIN: Part of Exhibit 1155?

19 MS. SEABORN: Yes.

20 MS. CRONK: Sorry, that interrogatory is
21 not part of Exhibit 1155 according to the copy I have.
22 Are you looking for Forests for Tomorrow 32?

23 MS. SEABORN: Yes.

24 MS. CRONK: That's fine. I will check my
25 copy of the exhibit list.

1 MS. SEABORN: I will check mine as well.
2 I may have made an error.

3 Q. In any event, at least for the record
4 we are all aware, it's Question 32, Forests for
5 Tomorrow, Panel 8 that you are referring to?

6 MR. NICKS: A. Right.

7 Q. Okay, Mr. Nicks.

8 A. Well, your question was whether --
9 would you rephrase your question, please?

10 Q. Yes. What I am wondering simply is:
11 Areas that are harvested and they are left to naturally
12 regenerate by no further assistance in the sense of
13 site preparation, any sort of treatment type, are those
14 areas included under your summary of fifth-year
15 stocking assessment results to the end of 1988 for the
16 16 FMAs?

17 A. Well, I guess the answer to that is
18 partially. Where managers were confident - and
19 remembering, this was the first five years of the FMA -

20 Q. Yes.

21 A. - were confident that natural
22 regeneration would work, they declared those parts of
23 the cut-over area that they felt would regenerate
24 naturally as projects and some of those areas were
25 subsequently assessed and reported on in Table 3.

1 In I think the minority of cases there
2 were some areas where the company was unsure as to what
3 the possibilities of natural regeneration success would
4 be, there was no lesser cost treatment option available
5 to them at that time, and so some of those areas
6 were -- to be perfectly candid, they were left in
7 abeyance in a rather cut and wait type of approach.

8 Of the total area of 21 per cent, which
9 represents the cut-over area which is not reported on
10 in Table 3 and the area -- let me explain this a better
11 way.

12 In our response to the interrogatory we
13 were asked how much harvested area was cut basically in
14 the time period corresponding to this table, and our
15 answer was about 129,000 hectares, that contrasts with
16 73,729 treated by the Industry. In addition, 27,864
17 hectares were treated by the MNR as its phase-in
18 obligation; thus the total formally treated area by
19 both parties was 101,593 hectares or about 79 per cent
20 of the harvested area.

21 The remaining area was 27,288 hectares,
22 or about 21 per cent of total harvest, and some of this
23 was considered non-treatable due to terrain, soil depth
24 and moisture regime, the same factors that Mr. Hynard
25 described, and a portion of it was essentially the cut

1 and wait type of area.

2 I am not sure of the exact breakdown of
3 those at the moment, but through supplementary stocking
4 surveys which are ongoing at the moment on a lot of
5 that area that was cut and left with the expectation or
6 the hope of natural regeneration, we are finding that
7 indeed it has restocked itself to non-preferred species
8 in most cases through natural regeneration.

9 Q. So can I take from that then, that
10 the Table 3 then where you are talking about -- let me
11 go back. What confused me was that you have a column
12 here called treated area and the number of hectares.
13 What I am looking at are the areas that in my mind and
14 based on the statistics provided through Mr. Hynard is
15 an area where it wouldn't be treated per se because you
16 are talking about regeneration to a commercially
17 non-preferred species; whereas in your table it was my
18 understanding that you are reflecting areas that have
19 been treated.

20 Now, am I correct that what you are
21 saying is that in this table there may be some areas
22 that were in fact not treated but they are included in
23 these statistics based on the manager's discretion
24 about whether -- not discretion, but based on the
25 manager's judgment or the company's judgment about

1 whether they were going to eventually be successful?

2 A. Well, they were not treated in the
3 sense that artificial regeneration implies treatment,
4 but they were left for natural--

5 Q. Right.

6 A. --with a deliberate expectation or as
7 deliberate decision, based on expectation, that they
8 would meet the particular stocking requirement based on
9 the manager's own experience.

10 So it includes this table, Table 3
11 includes areas naturally regenerated with the high
12 probability of success.

13 Q. To a commercially preferred species?

14 A. Well, generally. As you can see by
15 the numbers that certainly is the case. The majority
16 of the area is either softwood or mixed wood, both of
17 which are acceptable to softwood-using companies for
18 harvesting purposes.

19 So if anything, this provides a
20 conservative estimate of the balance, in our view,
21 between regeneration as the sum of natural and
22 artificial and the harvest. The percentage works out
23 to be about 79 per cent of the harvested areas being
24 treated.

25 The point I was trying to make in the

1 interrogatory response is that the percentage may
2 actually rise over time as areas that were left in cut
3 and wait, or Mr. Hynard says a cut and walk away,
4 situation are regenerating on their own to principally
5 hardwood, but in some cases mixed wood, and may indeed
6 raise that 79 per cent to a higher level over time.

7 Q. And I guess my point is that there
8 are then areas that are left for natural regeneration
9 that are not treated that would not show up in Table 3
10 in the FMAs.

11 So let's put it down to very simple
12 terms. We have got areas that are artificially
13 regenerated, areas that are naturally regenerated to a
14 preferred species and those items we have dealt with in
15 terms of your artificial and natural success
16 statistics?

17 A. Right.

18 Q. And what I am suggesting is that
19 there are also these other areas that fall into what
20 you call a cut and wait area, and that is also part of
21 the land base that is harvested, but it doesn't -- it's
22 not readily apparent in these statistics for natural
23 regeneration?

24 A. No. And as I tried to indicate at
25 the outset, this table really reflects the conditions

1 of the day where managers were somewhat uncertain,
2 being relatively new to the game, in terms of what
3 sites they could indeed achieve natural regen success
4 on. They were a little reluctant to commit their
5 companies, in some cases because of their lack of a
6 lesser cost provision, and this table developed in the
7 future would, I would submit, be considerably different
8 in that I believe most, if not all, area would be
9 accounted for, other than the extreme and easily
10 recognized non-treatable area. There would be a much
11 closer balance between harvest and regeneration.

12 Q. And so in your view then this is
13 something that could be accounted for in the future so
14 that there is a better balance?

15 A. Well, it will be accounted for just
16 through the formal FMA recordkeeping system.

17 Q. Okay. Now, in terms of the 63 per
18 cent success rate for natural regeneration, assuming
19 there is no clause in an FMA agreement in relation to
20 the lesser treatment provision that we have talked
21 about, should we take from the 63 per cent that the
22 remaining area, the 37 per cent that is left for
23 natural regeneration, has to be regenerated at the FMA
24 holder's expense?

25 A. Not necessarily. I believe it's

1 quite acceptable - and perhaps some of the other panel
2 members can help me out with the groundrules - but I
3 believe it's an acceptable option for the FMA holder
4 to, with the Ministry's concurrence and as covered in
5 the groundrules I believe, to leave the area for a
6 further five years with the expectation that natural
7 regeneration will occur by year 10.

8 At that time, subject to a clause such as
9 Mr. Gemmell described, basically the no heroics clause,
10 if I can phrase it that way, that the decision may or
11 may not be to do artificial regen on those sites.

12 Q. Now, in terms of Exhibit 534, could
13 you turn to the second page, 534B. Now, in his
14 evidence-in-chief Mr. Hynard broke down this, what he
15 called the cut and walk away area and what I believe
16 you have called the cut and wait area, into an area for
17 untreatable residual timber, which is the bottom band,
18 the dotted band which is untreatable other, and then
19 the untreatable -- I'm sorry, the natural regeneration
20 to a commercially non-preferred species.

21 Now, Mr. Nicks, in your experience, at
22 what stage in time in terms of the planning process is
23 an area declared non-treatable?

24 A. I am not intimately involved with the
25 planning process per se through the course of my job.

1 Perhaps Mr. Waddell could offer some direction on that.

2 Q. Mr. Waddell, are you aware --

3 MR. WADDELL: A. I am aware of it for
4 our own Upper and Lower Spanish management units, yes.

5 Q. That would be helpful.

6 A. In our groundrules it states that we
7 will try to identify where possible in the annual work
8 schedule the areas that are non-treatable in advance.

9 We also have the optional, after an area
10 is harvested, of applying to the Ministry for an area
11 to be classed as non-treatable and this is by mutual --
12 to have this final decision by mutual agreement.
13 Wherever possible you identify them up front, but
14 sometimes it's not always possible.

15 Q. And I take it then, Mr. Waddell, in
16 your experience there is not an attempt to define these
17 areas at the time of signing the FMA agreement, for
18 example?

19 A. No, definitely not. There was an
20 attempt to define NSR lands, but that is a totally
21 different question.

22 Q. Right.

23 A. No, there was no attempt made to
24 identify non-treatable. For a large part these are
25 often fairly small areas and they are contained -- you

1 may have a forest type of, for example, a hundred
2 hectares in size and within that you may have two or
3 three microsites, if I call them that - it's probably a
4 poor word - but, you have may have two or three parts
5 within that hundred hectare type that would be only
6 eight, nine, 10 hectares in size that you would not be
7 able to define properly in advance.

8 Q. Now, if you could turn, Mr. Waddell,
9 to page 205 of the Timber Management Planning Manual.

10 A. 205?

11 Q. 205. And you will see under
12 paragraph 5.8 there is a heading Non-Treatable
13 Productive Forest Areas, and there is a definition:

14 "A non-treatable area is defined as an
15 area where extremes in topography,
16 shallowness of soils, excessive rocks,
17 poor drainage or inaccessibility make it
18 uneconomic or impractical to treat.
19 Sites damaged through improper harvesting
20 practices shall not be deemed to be
21 non-treatable."

22 Now, in terms of the -- first of all,
23 based on your experience, would this be your definition
24 of a non-treatable area?

25 A. Yes, it would.

1 Q. And in terms of actually looking at
2 the land base and defining an area as untreatable, I
3 take it from your earlier evidence that is something
4 that is negotiated between the company and MNR as early
5 as the annual work schedule stage?

6 A. Yes. It's often negotiated right in
7 the field between the respective foresters of both
8 organizations, they walk the area, and we will indicate
9 to the Ministry that this particular area we feel we
10 cannot site prepare and, therefore, we would like it
11 classified as non-treatable.

12 Q. And what sort of parameters would you
13 look for in the field in terms of saying to MNR: Now,
14 this is an area we don't think we can treat?

15 A. Well, primarily our ability to
16 generate it back to a commercially preferred softwood
17 species, I would think is the number one parameter, and
18 in most cases this means, in our area at least for jack
19 pine, can we site prepare, because we have indicated
20 the chances of getting regeneration to jack pine in
21 northeastern Ontario without site preparation are very
22 poor.

23 So there are various methods, as you are
24 aware, that we can use to site prepare, but if we don't
25 feel that we can carry out a site preparation on that

1 job, then we can't likely plant it or seed it and,
2 therefore, we would classify -- or ask the Ministry to
3 agree with us that it is a non-treatable area.

4 Q. Going back to Exhibit 534, Mr. Nicks,
5 for the Upper Spanish Forest, what would be your
6 estimation as to the proportion of the area that would
7 be left for -- would be harvested and left in a cut and
8 wait situation at any point in time?

9 MR. NICKS: A. Well, if you are asking
10 about our future intent, that's not our plan at the
11 moment. In our new groundrules we have recognized the
12 potential of natural regeneration to occur on virtually
13 all areas that are non-treatable, and so our intention
14 now is to classify them as either intensive or
15 extensive regeneration.

16 And save and accept those areas which are
17 physically non-treatable, I find it difficult to put a
18 precise figure on it, but it's a very low percentage of
19 the area. All others will be either intensively or
20 extensively regenerated; i.e., artificially or
21 naturally.

22 Q. And so when you talk about naturally,
23 you are using it in the context of there will be
24 natural regeneration to a commercially preferred
25 species?

1 A. Not necessarily, no.

2 Q. Okay.

3 A. Softwood -- excuse me, poplar is
4 certainly an acceptable working group in terms of
5 regeneration if the sites described in the groundrules
6 permit it.

7 Q. And, Mr. Ferguson, in terms of the
8 English River Forest, what would be your estimate of
9 areas that would be left to naturally regenerate with
10 no further treatment?

11 MR. FERGUSON: A. As I indicated to Ms.
12 Swenarchuk a few days ago, we prescribe artificial
13 renewal methods -- or treatments to 65 to 70 per cent
14 of the area. Considering that there is a small
15 percentage of the land that is lost more or less
16 permanently in the form of roads, maybe four to five
17 per cent, the remainder would fall into the natural
18 regeneration category.

19 To the best of my recollection I don't
20 believe we have ever used a non-treatable clause within
21 the English River FMA.

22 Q. And, Mr. Squires, what would be your
23 experience or your estimate with respect to your
24 management units?

25 MR. SQUIRES: A. Also in response to Ms.

1 Swenarchuk, I described approximately between 35 to 45
2 per cent of the area from one year to the next gets
3 treated artificially, so the remainder again, minus the
4 three and a half to four per cent for roads, the
5 remainder gets a natural regeneration prescription.

6 That prescription may be to leave for
7 natural, no further treatment of it than harvesting,
8 and likewise we have not declared any area untreatable.

9 Q. And, Mr. Gemmell?

10 MR. GEMMELL: A. I think I indicated
11 that we artificially regenerate somewhere around the 60
12 per cent level and the remaining 40 we anticipate will
13 regenerate naturally to a preferred species. I am not
14 aware of any that has been stated as untreatable.

15 Q. Now, in terms of the experience - and
16 perhaps I will go back to you, Mr. Nicks - that you
17 have told me on each of your respective management
18 units; Mr. Nicks, would you agree with me that a 30 per
19 cent figure for areas left for natural regeneration to
20 a commercially non-preferred species is an inflated
21 percentage?

22 A. Where are you deriving that figure?

23 Q. I am deriving that figure from Mr.
24 Hynard's exhibit which he told us in the renewal panel
25 that there were three different areas; we have the

1 areas that are harvested and there is artificial
2 regeneration, there are areas that are harvested and
3 there is natural regeneration to commercially preferred
4 species, and then there are what he called those areas
5 that we go in and cut - and he talked about again good
6 reasons for cutting them - but, in any event, he said
7 we go in and cut certain areas and there is no
8 subsequent treatment or intervention with respect to
9 those areas and he told us that those figures were in
10 the percentage of 30 per cent.

11 And what I am hearing from all of you now
12 is that there is a very small portion of the area that
13 would be classified as cut and walk away.

14 A. So your question is: Is 30 per cent
15 an inflated estimate?

16 Q. Well, first of all, would you agree
17 that there appears to be a discrepancy between your
18 experience and the regeneration and harvest levels
19 table that has been provided in Exhibit 534?

20 A. Looking at 534B, where would the 30
21 per cent lie in your view?

22 Q. The white area, the top area, natural
23 regeneration to non-preferred species.

24 A. I see. So what's the difference.
25 Out of the total of as much as 200,000 hectares as many

1 as 50,000 hectares, which is about 25 per cent. That
2 is the maximum.

3 In some other years the difference, for
4 example, 82-83 the variances between 150 and let's say
5 175 to 180, so to me that is about 15 or 20 per cent.
6 In, 83-84 the difference is even less.

7 So I think 30 per cent, as an average, is
8 not an accurate figure based on the graph in 534B.

9 MR. WADDELL: A. Ms. Seaborn, I wonder
10 if the difference or the apparent difference is what
11 the Ministry is calling non-preferred species and we
12 are not sure what that is; natural regen to
13 non-preferred species.

14 Q. I expect that is maybe where the
15 difference lies in terms of what is a preferred species
16 and what is a non-preferred species.

17 A. May I read a paragraph of Mr.
18 Hynard's evidence dealing with this matter?

19 Q. Sure.

20 A. He's saying:

21 "As for the effects on timber production
22 these areas...", and he's talking about
23 this cut and walk as he calls it:

24 "...these areas do regenerate albeit
25 primarily to commercially non-preferred

1 species and I would say primarily there
2 would be natural regen, some degree of
3 stocking of preferred species and the
4 fact that they are regenerated to
5 non-preferred species does not mean that
6 they will be non-utilizable at their
7 maturity because of these trends of
8 increasing utilization that have been
9 occurring over time."

10 I think the point Mr. Hynard is trying to
11 make is that even though he or the Ministry may be
12 calling them non-preferred species today, he's
13 indicating that at rotation that way may well change
14 because the utilization standards by then may be and
15 will be totally different than what we are faced with
16 today.

17 So that even though they are calling them
18 non-preferred species now, they may be quite utilizable
19 at rotation.

20 Q. I am not, Mr. Waddell, debating at
21 the moment the issue of whether or not these areas
22 should or should not be harvested, that is not my
23 concern, it's more a traceability concern in terms of
24 understanding what happens to areas that are harvested
25 and there is no subsequent treatment carried out on

1 those areas.

2 First of all, I was trying to establish
3 in this Table 3 whether or not these areas exist, and I
4 wanted from these gentlemen's experience an outline of
5 whether in their view there are areas such as that on
6 their FMAs.

7 I think that is my next question I will
8 ask you, Mr. Waddell. In your experience, if an area
9 is harvested, left for natural regeneration and there
10 is no treatment at all, would that show up in the
11 silvicultural groundrules?

12 A. Would it show up in the silvicultural
13 groundrules?

14 Q. Would it be contemplated by the
15 silvicultural groundrules?

16 A. Yes, it should be. It should
17 indicate that we have an option to regenerate naturally
18 back to a specific working group.

19 For example, if it is a mixed wood stand
20 to begin with, for example again poplar and jack pine,
21 on certain sites in our silvicultural prescriptions we
22 had the option of allowing -- of removing the softwood
23 and allowing that to regenerate naturally back to
24 poplar.

25 Q. And, Mr. Waddell, in terms of just

1 following up with your answer with respect to the
2 annual work schedule being the time at which you look
3 at non-treatable, could we just turn to page 95 of the
4 Timber Management Planning Manual which is Table 4.19.

5 MR. WADDELL: A. Yes.

6 Q. Now, this is the table that requires
7 a forecast of renewal and maintenance operations. Now,
8 am I correct that if you had an area that was harvested
9 and there was no subsequent treatment prescribed with
10 respect to that after that harvest, that that area
11 would not show up on the forecast?

12 A. It would be my understanding that it
13 would show up under the category of natural
14 regeneration the third -- or fifth line down from the
15 top under renewal on the left side. That is my
16 understanding, and possibly somebody else on the panel
17 who works more on a day-to-day basis with this form
18 could help me on that.

19 But my understanding would be that in the
20 case you are suggesting where an area is harvested and
21 there is no physical renewal treatment carried out, in
22 other words, we make a conscious decision to regenerate
23 naturally, that the forecast would show up under this
24 column of natural regen.

25 Q. Mr. Nicks, do you have any

1 experience?

2 MR. NICKS: A. I would concur with Mr.
3 Waddell's statement. The objective of our
4 intensive/extensive classification system which we have
5 developed with the MNR in our new groundrules was
6 precisely that, to account for all harvested areas from
7 the outset in terms of allocating them to a renewal
8 system.

9 Q. In terms of the cut and walk away
10 area, in the context of the cut and walk away area, Mr.
11 Nicks, could you just turn over to page 96 which are
12 the instructions on the back under natural
13 regeneration.

14 A. Okay.

15 Q. Okay. And, Mr. Waddell, I take it
16 this is what you were referring to:

17 "Any harvesting which is a planned
18 regeneration treatment by itself shall be
19 forecast as natural regeneration."

20 MR. WADDELL: A. That's right.

21 Q. What I am talking about is the
22 situation that Mr. Hynard attributed to a portion of
23 the land base where you were going in and harvesting
24 but your harvesting itself is not the planned
25 regeneration treatment.

1 And if you look at the last sentence,
2 there is reference to areas which are to be harvested
3 but which are not expected to regenerate naturally are
4 not included. What is your understanding of what that
5 refers to?

6 A. Can you help me out with where you
7 are?

8 Q. Yes. I am sorry, the last sentence
9 under natural regeneration.

10 A. On page 96?

11 Q. Yes.

12 MR. NICKS: A. We don't seem to have
13 that.

14 Q. It's the back of Table 4.19.

15 MR. MARTEL: It was revised.

16 MS. SEABORN: Q. I guess you don't have
17 the revised Timber Management Planning Manual.

18 MR. WADDELL: A. We certainly should
19 have.

20 MS. SEABORN: It's dated February 15th,
21 1988 in the bottom of the insert. It appears Ms. Cronk
22 doesn't have the right version either.

23 MS. CRONK: Could I have a minute, Madam
24 Chair.

25 ---Discussion off the record

1 MR. WADDELL: Your question is?

2 MS. SEABORN: Q. It was my understanding
3 from reading the instructions on the back of the table
4 that it was precisely those areas which are harvested
5 which would fall within cut and wait -- or cut and walk
6 away area that are not to be forecast on Table 4.19.

7 MR. WADDELL: A. From these instructions
8 that would appear to be correct. Basically our
9 position is though that on this cut and wait, as we
10 call it, that we are not prepared to say at that point
11 in time that these areas will not regenerate naturally.
12 So I think we would be including them.

13 Q. So you would prefer to include them
14 in your forecast then?

15 A. Yes, we would, on the understanding
16 that we are responsible for carrying out fifth-year
17 stocking assessments on all areas we've cut-over, both
18 ones we treat naturally and artificially, and that is
19 what we would do.

20 Q. And just a follow-up from that, Mr.
21 Waddell. I take it then that based on this particular
22 instruction you would have great difficulty in
23 following that instruction today? Would that be your
24 evidence?

25 A. Are you asking me, our company?

1 Q. Sure.

2 A. Yes, I would because that's -- with
3 the new groundrules we have in place as of the 1st of
4 April it doesn't really tie in with exactly that
5 because we are into extensive and intensive treatment
6 and we would -- I believe we would indicate the great
7 majority of those areas we expected to regenerate
8 naturally.

9 As I indicated, we would follow that up
10 with fifth-year stocking assessment to see what
11 actually was the status of those lands.

12 Q. And, Mr. Waddell, just one more
13 question on this area. If you could turn to page 41 of
14 the manual which is the Report of Renewal and
15 Maintenance Operations.

16 MS. CRONK: 41?

17 MS. SEABORN: Q. Page 41, and this again
18 is updated February 15th, 1988.

19 MR. WADDELL: A. Yes.

20 Q. And my understanding, this is a
21 report that is included as part of the Report on Past
22 Forest Operations, and I note on page 42 on the
23 instructions under natural regeneration there is a
24 similar direction with respect to areas which are
25 harvested but which are not expected to regenerate

1 naturally are not included.

2 A. Could you point that out to us,
3 please?

4 Q. Yes. On page 42 on the instruction
5 portion of Table 4.4 under Natural Regeneration.

6 Q. Do you still have Ms. Cronk's
7 version?

8 A. Yes, we do.

9 MR. NICKS: A. I thought we did, but I
10 guess we don't.

11 MR. WADDELL: A. I don't have anything
12 under natural.

13 Q. Sorry. (handed)

14 A. Yes. And the question again, Ms.
15 Seaborn, please?

16 Q. Yes. Based on what you have told us
17 today would you have any -- this is a Report on Past
18 Forest Operations. Would you disagree with that
19 instruction and be inclined to include those areas in
20 your report?

21 A. I have to say that there is -- what
22 we will do in the future and what we have done in the
23 past here, in our particular company, are slightly
24 different. I don't think that in the future we would
25 include those. In the past we may have before we got

1 into this extensive/intensive forestry treatment. As
2 of now, we don't even have the definition of a
3 non-treatable area in our new groundrules.

4 Q. And could you go to Table 4.1 which
5 is at page 32 and this is the Report of Depletion by
6 Area.

7 A. Yes. Yes, I have it.

8 MADAM CHAIR: Is that Table 4.2?

9 MS. SEABORN: Table 4.1. My page 32 is
10 31 and is an excerpt and I have it after that page, in
11 fact it looks like it's page 33 of the original manual.

12 Q. And, Mr. Waddell, you will see there
13 is a column for untreatable and on the back page there
14 is an instruction with respect to entering the
15 depletion area that has been classified and agreed to
16 during the five-year plan:

17 "Enter the sum of the five annual reports
18 (Table 6.1) for the term."

19 Now, is that something in your experience
20 that is easy to do?

21 A. Easy to -- under 6.1.

22 Q. Well, that's a requirement that is
23 currently contemplated under the new Timber Management
24 Planning Manual, and do you have any difficulty with
25 that requirement, is the question?

1 A. I don't think so, provided that you
2 have been able to come up with the figure in the annual
3 report each year; in other words, as long as the
4 company and Ministry has agreed on an annual basis that
5 what area is constituted non-treatable, then it's no
6 problem.

7 Q. So the company involved and MNR has
8 to ensure that that agreement is reached in order to
9 comply with this reporting requirement?

10 A. That's correct.

11 Q. Now, in terms, Mr. Waddell, of new --
12 of preparing groundrules under the current Timber
13 Management Planning Manual, is it your experience that
14 the options for renewal are listed in the silvicultural
15 groundrules in order of preference?

16 A. They are definitely not, in our case
17 there is no attempt made to put them in priority and
18 that is where I have to agree -- or disagree, I should
19 say, with some previous evidence.

20 I believe it was Mr. Waito or Mr. Hynard
21 that indicated that was the case. They are certainly
22 not the case in ours. We made no attempt to prioritize
23 because what may be No. 1 priority for a given set of
24 conditions is not No. 1 priority with a slight change.

25 So we have not attempted to prioritize and

1 I may wish to ask the other gentlemen on the panel, but
2 certainly not in our case.

3 Q. Mr. Gemmell, what is your practice.

4 MR. GEMMELL: A. No, we didn't prioritize.

5 Q. Mr. Squires?

6 MR. SQUIRES: A. The current ones have
7 no prioritizing.

8 Q. Mr. Ferguson?

9 MR. FERGUSON: A. I believe in the
10 1985-90 groundrules for the English River they were
11 prioritized, however, it was not a rigid prioritization,
12 there was definitely flexibility to move within those
13 groundrules.

14 Q. And, Mr. Murray?

15 MR. MURRAY: A. I am not familiar with
16 the Ministry's groundrules.

17 Q. And, Mr. Waddell, I take it you are
18 aware of the current requirement with respect to Table
19 4.11 for silvicultural groundrules for normal
20 operations, that the Ministry requires that the renewal
21 options be listed in order of preference with the
22 conditions that will be used to guide the choice?

23 MR. WADDELL: A. I have to confess I am
24 not aware of that.

25 MR. FREIDIN: Whoa.

1 MS. CRONK: I don't think that was the
2 case.

3 MR. FREIDIN: Could you repeat that, I
4 don't think that was the evidence.

5 MS. SEABORN: Well, if you turn to page
6 66 of the Timber Management Planning Manual, Table
7 4.11, Item 7, Renewal Treatment Description, and there
8 is a requirement that:

9 "Enter the renewal options in order of
10 preference and with the conditions that
11 will be used to guide the choice. The
12 need for site preparation is included
13 here."

14 MR. SQUIRES: I would like to add
15 relative to that clause that relative to the Spruce
16 River Forest current groundrules this manual was
17 drafted since those groundrules were drafted.

18 MS. SEABORN: That's right.

19 MR. WADDELL: I am confused here, Ms.
20 Seaborn. Can you take me back to where you asked me if
21 I was aware of that requirement. I am not aware of
22 that requirement.

23 MS. SEABORN: Q. Okay. All I am
24 suggesting is that I believe, Mr. Waddell - just to
25 summarize quickly, the evidence of the members of this

1 panel is that when the renewal options are written in
2 the groundrules for the FMAs, at least that are
3 represented by this panel of evidence, the renewal
4 options are not listed in any priority; is that
5 correct?

6 MR. WADDELL: A. That's my understanding
7 yes.

8 MS. SEABORN: Okay.

9 MS. CRONK: I am sorry, Madam Chair, that
10 is not the evidence with respect to Mr. Ferguson and I
11 understood it to be the evidence of Mr. Waddell with
12 respect to the current groundrules.

13 Maybe you want to clarify that. Anyhow,
14 that certainly wasn't Mr. Ferguson's evidence.

15 MS. SEABORN: I think Mr. Ferguson said
16 the groundrules that are in effect, I'm basing it until
17 '91, they are written in priority; Is that correct?

18 MR. FERGUSON: Yes, the original priority
19 wasn't in the options; the second term they were, as
20 such.

21 MR. WADDELL: A. Now, I am really
22 confused because I am not sure what -- that Ms. Cronk
23 stated our case there, at least I heard it. Let me try
24 once more.

25 The groundrules in the 80-85, the 85-90

1 and the 90-95 draft groundrules for the Upper and Lower
2 Spanish are not in any order of priority.

3 Q. That had been my understanding as
4 well. And I believe you had also said, based on
5 looking at Table 4.11, that you were not aware of this
6 particular requirement that is in the Timber Management
7 Planning Manual today?

8 A. No, I am not.

9 Q. Okay. And you had also said you
10 believe your evidence in this regard differs somewhat
11 from Mr. Waito and Mr. Hynard, in that I believe you
12 had said that they had talked about some sort of
13 priority of renewal options?

14 A. I believe one of those Ministry
15 witnesses stated, upon being asked a similar question,
16 that in their opinion most of the groundrules were
17 stated -- renewal options were stated in some order of
18 priority, and that is not my experience.

19 Q. Thank you.

20 Mr. Squires, based on Industry's current
21 practices and mechanisms for internal quality control,
22 is Industry confident that silvicultural prescriptions
23 are on the whole properly carried out, to the extent
24 that artificial regeneration is carried out, in terms
25 of stocking properly planted or good practices used in

1 terms of site preparation?

2 MR. SQUIRES: A. Could I ask you to
3 rephrase that, please?

4 Q. I guess what I am getting at: Would
5 you agree with me that it has been Industry's -- the
6 tone of Industry's evidence throughout is that they are
7 operating using very good practices, good sound
8 silvicultural practices in terms of good workmanship in
9 the field for planting, good site preparation
10 techniques?

11 A. I believe that is the evidence, yes.

12 Q. Okay. And, Mr. Waddell, in your
13 experience and based on your involvement on this panel,
14 would you agree with Mr. Squires?

15 A. Yes, I would. Again, I would have to
16 say from a personal note that I as such have not
17 visited every FMA in the province, I haven't seen
18 first-hand, but I have seen the results of the survey
19 and I know most of the company foresters that are in
20 charge of the units, and I have every degree of
21 confidence in their commitment and experience and
22 ability.

23 Q. Now, in the event that there are
24 silvicultural failures, Mr. Waddell, in your view,
25 would such failures be more attributable to

1 inappropriate silvicultural prescriptions as opposed to
2 poor execution of the work in the field?

3 A. I really couldn't comment in terms of
4 a definitive answer there. I think it could be --
5 there could be situations when either reason that you
6 give may result in a failure of a prescription.

7 It could be stock quality, it could be
8 quality of planting or, as you have suggested, in
9 extreme cases it could be because of someone has
10 attempted to try a prescription that just has not been
11 the correct one for the correct site.

12 Q. That's right. Sometimes -- all I am
13 suggesting is that sometimes things just don't work?

14 A. That's quite true. In this business
15 the weather is extremely important to us and you can
16 plan and execute to the best of your ability and if you
17 don't get the proper amount of moisture or sunlight at
18 the critical periods, you are going to have problems
19 with your plantation.

20 Q. Now, last week Mr. Hanna was asking
21 you some questions about Industry's inspection
22 activities and I believe this was touched upon again
23 today. You said I believe that MNR should carry out
24 area inspections, and within these inspections, Mr.
25 Waddell, they look for things such as environmental

1 damage of any type, and you gave an example of soil
2 compaction, cutting too close to a reserve or erosion.

3 Do you recall that evidence?

4 A. I recall the answer, but I would
5 suggest that I probably did not use that word soil
6 compaction, that was Mr. Hanna's, he was trying to get
7 me to say, and I don't think I agreed to soil
8 compaction per se. I may have used the term soil
9 erosion.

10 Q. I think you are correct actually.
11 And I am looking at page 35581 of the transcript,
12 Volume 201 dated Thursday, May 10th.

13 MS. CRONK: I am sorry, what page?

14 MS. SEABORN: Page 35581.

15 MS. CRONK: Thank you.

16 MS. SEABORN: Q. And, Mr. Waddell, you
17 had said in response to a question from Mr. Hanna:

18 "Well, what I was going to say, sir, was
19 that the Ministry in one of their terms
20 and conditions has proposed an area
21 inspection on a regular basis. This is
22 done by Ministry staff, and I would think
23 that at that time that is one of the
24 things that they would be looking for,
25 environmental damage of any kind be it

1 soil compaction, be it cutting too close
2 to or impacting on reserves, erosion, any
3 of those type of concerns. It's their
4 responsibility to note that and if the
5 Industry is not doing a satisfactory job,
6 then they I am sure will take the
7 appropriate action."

8 Now, based on that response, Mr. Waddell,
9 is it fair to say that information obtained by MNR
10 through the area inspection process would be useful to
11 a company such as yours carrying out the activities in
12 terms of a feedback?

13 A. Yes, it certainly would be useful and
14 to some extent we get this information now from
15 Ministry. When they go into the field, when they carry
16 out inspection and everything is a hundred per cent we
17 are advised of it; sometimes when it isn't a hundred
18 per cent, we are advised of that too.

19 MS. SEABORN: And, Madam Chair, I would
20 like to file an excerpt from MOE's draft terms and
21 conditions, that's term and condition No. 16, and
22 rather than pulling out the whole terms and conditions,
23 - I have made copies, if you would like to make this
24 excerpt an exhibit.

25 MADAM CHAIR: That will be Exhibit 1160.

1 directed largely at compliance monitoring?

2 MR. WADDELL: A. I thought it had a
3 - component of effects monitoring as well. Yes, I will
4 agree that it seems primarily to be compliance
5 monitoring.

6 Q. And would you, from your company's
7 standpoint, have any problem with the area inspection
8 process being expanded to include notations such as
9 what we have described in our term and condition as
10 local incidence, conditions and effects?

11 A. May I ask you for a definition of two
12 words, please, before I attempt to answer your
13 question?

14 Q. Sure.

15 A. First would be local incidence, what
16 do you mean specifically by that term?

17 Q. Local would be what I am suggesting
18 that in a context of an on-site incident.

19 A. Something pertaining to the actual
20 area that was inspected?

21 Q. That's right.

22 A. And could you define for me what you
23 mean, and effects, the word effects as you use it
24 there?

25 Q. Any assessment by someone from MNR in

1 terms of noting an outcome of a silvicultural activity,
2 for example.

3 The effects may be that the activity was
4 carried out as planned and there was nothing unusual
5 noted at that site, maybe something more.

6 Another example would be erosion which is
7 in the context of your answer to Mr. Hanna.

8 A. You are asking me, do I think that my
9 company would have any concerns about the way that is
10 phrased?

11 Q. I am not so much concerned about the
12 way it is phrased, what I am suggesting is that you
13 have said in response to a question to Mr. Hanna that
14 it was your understanding, and in fact are think you
15 have said to me today it would be useful information
16 for the company to have, that MNR should and does carry
17 out certain area inspections.

18 And what I am suggesting is that in
19 accordance with what you told Mr. Hanna, these area
20 inspections would be an appropriate time for MNR staff
21 to note any particular incidents or effects such as
22 erosion, and would you have any difficulty with MNR
23 being required to undertake that?

24 A. No, I wouldn't, provided that the
25 local incidence, as you call them, are something worth

1 reporting not just a series of nitpicking situations
2 that we could resolve in a very similar manner. I
3 mean, if these were meaningful incidents or effects, I
4 have no problem with that.

5 Q. Thank you.

6 I wanted ask you, Mr. Waddell, a few
7 questions about survival assessments and I believe you
8 said survival assessments are only conducted on planted
9 stands?

10 A. That's correct.

11 Q. And, as I understand it, the purpose
12 is simply to determine what percentage of the trees
13 survive after a specific period of time?

14 A. That's correct.

15 Q. And the information from a survival
16 survey will help to determine the efficacy of the
17 planting prescription?

18 A. Not necessarily.

19 Q. Why not?

20 A. Well, you are asking me if the
21 survival results determine the efficacy of a plant --
22 what was your word?

23 Q. Prescription.

24 A. Prescription. What survival results
25 will do for you will give you a picture at a particular

1 point in time of the percentage of trees that are still
2 living from the initial number you planted but, as we
3 have tried to show, that doesn't necessarily mean that
4 your planting or your plantation is successful or will
5 be successful.

6 And I think in our answer to an
7 interrogatory we used the example of: You can have a
8 90 per cent success figure at the end of year two,
9 three or four, but if you only planted 400 trees per
10 acre to begin with, or 500 trees, then you are down to
11 a very low number of trees.

12 And at that point stocking and freedom
13 from competition or the amount of competition is a more
14 significant factor, in our view, than our actual
15 survival.

16 Q. What I am suggesting in terms of the
17 connection between survival and the planting
18 prescription, that information from a survival survey
19 is one of the factors - I am not suggesting it's the
20 only factor - but it's one of the factors that is going
21 to help you determine whether or not that planting
22 activity was successful?

23 A. I agree. Yes, I would agree with
24 that.

25 Q. Okay.

1 A. Excuse me, go ahead.

2 Q. No, if you want to finish your
3 answer.

4 A. I was just going to add, the year in
5 which it is taken is often very important as well
6 whether it be first or second or third year.

7 Q. Right. And would you agree that
8 survival information can also help to determine the
9 amount of stocking from volunteers?

10 A. I am not sure how it would because
11 survival we pin specific trees, whereas with stocking
12 we only count one tree in a plot, and I am unsure of
13 the connection.

14 Q. Okay. I am thinking of situations
15 where your survival rate may be low but your minimum
16 stocking might still be achieved based on volunteers.

17 A. A possibility.

18 Q. And would it be fair to say that in
19 those situations reaching your minimum stocking based
20 on assistance from volunteers may not have necessarily
21 justified the expenditure that was made for the
22 artificial treatment in the first place?

23 A. I would think that any plantation
24 where you have artificially regenerated it through
25 planting, if you have to depend upon the natural

1 ingrowth, you have had a very poor survival rate.

2 Q. Right.

3 A. And something has gone drastically
4 wrong.

5 Q. Okay.

6 A. Which could be one of the factors.
7 But that, I would suggest, is a very unusual situation.
8 I would be quite disturbed if it happened in our area:
9 Why did we -- why did we plant it, what happened, what
10 went wrong.

11 Q. And, Mr. Waddell, from your
12 experience, is there a benchmark or a standard for
13 survival to justify the costs associated with planting?

14 A. I don't know of any formal benchmark
15 as such. Again, it would depend upon the species and
16 the number or the year in which you took your survival.
17 As we say, there is nothing magic about second-year
18 survival. Again, there is some variation between
19 container and bareroot. I don't know of any formal
20 benchmark.

21 Q. And, Mr. Ferguson, do you have a view
22 as to an appropriate survival rate of planted stock to
23 justify the increased expenditure that that artificial
24 treatment requires?

25 MR. FERGUSON: A. Well, you'd certainly

1 want as many as possible to survive once the
2 expenditure is made. I am not sure that the levels
3 should be established per se.

4 There are other criteria which may affect
5 survival that should enter, depending on the site. I
6 think it would be difficult to establish an exact
7 percentage.

8 Q. Mr. Squires, I wanted to ask you the
9 same question.

10 MR. SQUIRES: A. I would answer it
11 somewhat the way Mr. Ferguson answered. I would add
12 that in our case we did set a target of 90 per cent
13 survival which we had achieved and we are now looking
14 for higher. That is not to say anything less is not
15 economically appropriate.

16 Q. And, Mr. Gemmell?

17 MR. GEMMELL: A. I think we have a
18 guideline of we would expect at least 80 per cent
19 survival on the average planted stock. We would be
20 rather disappointed or concerned with less.

21 Q. And is that an internal company type
22 guideline or is that something that is part of your
23 negotiations with MNR for the signing of the FMA?

24 A. I'd say that is a term.

25 Q. Okay.

1 Now, Mr. Waddell, we have heard evidence
2 that the Industry does not agree with MNR's term and
3 condition requiring the collection of second-year
4 survival data; is that correct?

5 MR. WADDELL: A. Essentially, yes.

6 Q. Yes. And you have also said there
7 is, in your view, no magic in the two-year collection,
8 there could be data collected in the first year or the
9 fifth year; it's a snapshot in time?

10 A. Correct.

11 Q. Okay. Now, would you be opposed to a
12 term and condition that required survival assessments
13 at the unit forester's discretion before the sixth year
14 after planting? What I am suggesting is the unit
15 forester responsible for that management unit would
16 have the discretion to do a survival assessment at any
17 time.

18 A. Any time during the first six years
19 the unit forester must carry out a survival assessment,
20 but the actual year would be at his choice?

21 Q. Yes.

22 A. And what about standards, Ms.
23 Seaborn?

24 Q. I am not putting any standards in at
25 this point, I am just suggesting that as a proposition

1 in terms of I'd like to get your views on it.

2 A. Given that -- again, I cannot speak
3 for the Industry on this because we haven't discussed
4 that sort of a proposition, so I will just have to give
5 you my own personal views. I hope that's acceptable.

6 Q. Sure.

7 A. Given that we have some very strong
8 reservations about both the value of second-year --
9 pardon me, about the value of survival statistics, I
10 would prefer not to be mandated into collecting them,
11 even though under certain situations we do collect them
12 at the present time within our company.

13 However, if it's put to us that we are
14 going to have to collect second-year survival
15 statistics, or the Ministry is going to collect them,
16 then I like your flexibility in terms of the year
17 better than being told that at the end of the second
18 year, no matter what, those statistics will be
19 collected.

20 Because some unit foresters will wish to
21 collect them at the end of year one, for example, when
22 the great majority of the mortality may have occurred,
23 others for whatever reason may wish to go through to
24 year five. So I guess my position would be I would
25 ---I hope that we are not mandated into collecting

1 them, or that the Ministry is mandated into collecting
2 them.

3 Should that pass, then I personally would
4 prefer the flexibility in terms of the timing that you
5 are suggesting, and I do believe that is important, the
6 timing of flexibility.

7 Q. And am I correct, Mr. Waddell, that
8 an FMA holder's responsibility to regenerate failures
9 is based on fifth-year stocking results as opposed to
10 free to grow benchmarks?

11 A. Yes, that is correct. It's in the
12 agreement, it's stated that the fifth-year stocking
13 assessment will be the determining factor in whether a
14 company must reconsider or must consider retreating.

15 Q. And free to grow benchmarks are based
16 on height, stocking and freedom from competition
17 essentially?

18 A. Yes, and the other -- the fourth
19 factor is the height growth in a particular year.

20 Q. And would you agree with me that
21 these are more restrictive than the fifth-year stocking
22 results?

23 A. Yes, certainly, because before a
24 stand can be considered for free to grow it must have
25 met the fifth-year stocking assessment; in other words,

1 normally 40 per cent. And then, in addition to that,
2 you would have the other three factors that we just
3 discussed, height, growth, the freedom from competition
4 and so forth.

5 Q. And in your view, is it because the
6 free to grow benchmarks are more restrictive that you
7 do not define success or failure based on free to grow?

8 A. When you say, you do not define
9 success in terms of free to grow, who do you mean by
10 you?

11 Q. Well, I suppose I should say from an
12 FMA holder's point of view.

13 A. Would you restate that, please?

14 Q. Okay. Let me put it another way. I
15 take it the Industry would not be prepared to define
16 success or failure based on the free to grow benchmarks
17 and would rather define success or failure based on
18 stocking; is that a fair statement?

19 A. I am afraid that is something I
20 cannot speak for the Industry on, Ms. Seaborn. I don't
21 think the proposition has ever been put to us.

22 When we negotiated the FMAs in 1979 and
23 80 this was the basis of the undertaking, that we would
24 be assessed on fifth year. I would agree with you that
25 ultimately the success is determined by your free to

1 grow category because if you do not get the stand back
2 into free to grow it does not re-enter the inventory
3 and it does not impact on your future allowable cut
4 calculations.

5 So in the final analysis that is the
6 ultimate level of success, free to grow.

7 Q. Thank you. And, Mr. Waddell, in your
8 experience, are the costs of regeneration treatments
9 considered when choosing between natural or artificial
10 regeneration options?

11 A. They are one of the factors that are
12 considered, certainly, along with numerous others. In
13 the FMA sites costs isn't really -- well, it is
14 considered but on many sites there is only one way of
15 getting regeneration on the area and that is
16 artificial. And again I go back to my home ground of
17 jack pine and, in many cases, we do not have an option
18 to regenerate naturally.

19 Q. And in terms of Industry's choice of
20 the method of harvest that it wishes to carry out,
21 would you agree with me that cost is a factor in making
22 that determination?

23 A. In terms of the actual choice of the
24 harvest method?

25 Q. Yes.

1 A. Certainly.

2 Q. Okay. And I am thinking, for
3 example, that we have heard evidence over the course of
4 the hearing that there has been a movement away from
5 cut and skid operations to full-tree harvesting and
6 there have been various witnesses give explanations
7 that one of the factors has been a question of cost,
8 it's just more economical to operate mechanized logging
9 equipment in this day and age; is that a fair
10 statement?

11 A. I think it depends what company you
12 are talking about. Ours for instance, not necessarily
13 at the moment, we are driven to more mechanical
14 operations by lack of available manpower as much as
15 anything. Because the majority of our operations are
16 in the camps, in live-in camps we find it very
17 difficult to attract the number of men to live in a
18 camp from Monday to Friday night.

19 Q. That's one of the factors. I am
20 using economical in the broadest sense, economics may
21 be a lack of manpower as well.

22 A. Yes. And another of course is that
23 it's very -- the type of logging equipment you use is
24 very site-dependent, a lot of mechanical equipment
25 cannot be used on a lot of sites.

1 MR. GEMMELL: A. And I might just add,
2 safety is a major factor in that decision-making as
3 well, which is a very big factor.

4 Q. Yes. And safety, as I understand it,
5 Mr. Gemmell, is a big factor towards the movement away
6 from having men in the bush with chain saws?

7 A. That's true.

8 Q. And having mechanized equipment?

9 A. That's true.

10 Q. Thank you.

11 MADAM CHAIR: Ms. Seaborn, the Board is
12 ready for its afternoon break.

13 MS. SEABORN: Well, I think if I could
14 have one --

15 MADAM CHAIR: Is it convenient for you?

16 MS. SEABORN: I think if I have one
17 moment I will be finished, Madam Chair, if that is
18 convenient.

19 MADAM CHAIR: All right.

20 MS. SEABORN: Those are all my questions,
21 Madam Chair and Mr. Martel.

22 Thank you, members of the panel.

23 MADAM CHAIR: Thank you, very much. We
24 will be back in 20 minutes.

25 Will you be ready to proceed, Ms. Cronk?

1 MS. CRONK: Madam Chair, I was going to
2 ask if the Board would indulge me for an extra 10
3 minutes so that I can consult with my client about one
4 or two matters that have been raised and I'll be clear
5 to go and certainly finish within an hour.

6 MADAM CHAIR: That's fine. What time
7 would you -- back at a quarter to?

8 MS. CRONK: That would be perfect. Thank
9 you very much.

10 ---Recess taken at 3:15 p.m.

11 ---On resuming at 3:45 p.m.

12 MADAM CHAIR: Please be seated.

13 Ms. Cronk?

14 MS. CRONK: Thank you.

15 RE-DIRECT EXAMINATION BY MS. CRONK:

16 Q. Panels members, you will be pleased
17 to hear that I don't expect to be very long.

18 But could I start Mr. Nicks with you,
19 please, and could I ask you to go to Table 3 at page
20 124 of Exhibit 1137, the statement of evidence for this
21 panel.

22 And I would like to ensure that I
23 understand the nature of some of the information
24 provided in this table, in light of some of the
25 questioning that took place today.

1 First, does the table refer, Mr. Nicks,
2 to all treated areas; that is, treated by the Industry,
3 or just to the areas treated and assessed to the end of
4 1988?

5 MR. NICKS: A. My understanding is it's
6 the areas treated and assessed, formally treated and
7 assessed.

8 Q. Dealing then with the areas not on
9 this table, Ms. Seaborn and you had a discussion about
10 cut and wait areas and you were taken to an exhibit
11 that Mr. Hynard had used and part of it in which he had
12 talked about cut and walk areas.

13 Dealing with areas not on this table, not
14 dealt with in the statistics in Table 3, is it possible
15 that some of those areas, the ones not dealt with in
16 this table, have been treated but not yet assessed?

17 A. Completed in the sense -- treated in
18 the sense that natural treatments were employed, yes.

19 Q. And does Table 3 contain any
20 information or any statistics relating to treatments
21 carried out by the Ministry of Natural Resources as
22 distinct from Industry representatives?

23 A. No, it does not, it's purely
24 Industry-initiated projects.

25 Q. And then, still dealing with this

1 table, Mr. Nicks, Ms. Swenarchuk in questioning Mr.
2 Waddell on certain funding matters indicated, at least
3 as I took it down in my notes, that 60 to 70 per cent
4 of regeneration is artificial regeneration.

5 Looking just at Table 3, can you assist
6 the Board: Of the areas treated and assessed by the
7 end of 1988 for the purposes of fifth-year stocking
8 assessments, what percentage overall was renewed by
9 natural methods?

10 A. If you will give me one moment I will
11 figure that out. I calculate a figure of 63 per cent
12 of the total treated and assessed area was treated by
13 natural methods.

14 Q. And what percentage then overall was
15 renewed by artificial means?

16 A. 37 per cent.

17 Q. And how are you deriving the 63 per
18 cent for the areas treated by natural methods?

19 A. I am dividing the figure for all
20 working groups of 46,453 found in the middle of the
21 table, and dividing that by the total at the bottom of
22 the treated area column, 73,729 hectares.

23 Q. Thank you. And could I ask you to
24 look at Exhibit 1157 which is your breakdown of the
25 natural regeneration component of Table 3.

1 A. Yes, I have it.

2 Q. What does scarification mean as used
3 in this breakdown?

4 A. Scarification is the term used to
5 indicate site preparation for natural regeneration.
6 This is principally accomplished through drags such as
7 anchor chains or tractor pads pulled usually behind a
8 skidder of in excess of 150 horsepower.

9 Q. Well, just dealing with the jack pine
10 working group, the first category on Exhibit 1157 for
11 example, can you, on the basis of the information
12 contained in this breakdown, compare the stocking
13 results achieved by the scarification methods you have
14 just described to those realized by means of harvest
15 cut?

16 A. Can I compare them--

17 Q. The stocking results.

18 A. --in any way beyond which is
19 indicated in the data, the 33 per cent for
20 scarification and 66 per cent for--

21 Q. Harvest cut?

22 A. --harvest cut.

23 Q. All right. And in that context, help
24 me again as to what harvest cut refers to?

25 A. Harvest cut refers simply to

1 harvesting. Again the method was not defined by either
2 tree-length or full-tree methods.

3 Q. Thank you. I will leave that there.
4 And to you as well, Mr. Nicks - and also, Mr. Waddell,
5 to you - could you put in front of you again, if you
6 would, if you still have it, Exhibit 534 dealing with
7 Mr. Hynard's evidence that Ms. Seaborn was referring to
8 before the break. And the exchange took place with
9 both of you, so I will direct my questions to both of
10 you and whichever of you feels it is appropriate to
11 answer it, if we could proceed that way.

12 First, looking at page B of Exhibit 534,
13 the second page, do you know how Mr. Hynard was using
14 the phrase untreatable, the word untreatable in the
15 context of this exhibit? Do you know how he was using
16 it, Mr. Nicks?

17 A. My recollection of his testimony was
18 that untreatable referred to, or was defined as not
19 physically or economically treatable because of site
20 conditions such as rock and swamp and slope, and the
21 second reason would be residual timber hardwood such as
22 birch and poplar.

23 Q. And when you use the term untreatable
24 are you using it in the same or in a different way?

25 A. We use the term untreatable as it's

1 defined in our groundrules which is essentially site
2 related only and it refers to categories of rock and
3 swamp and slope and so on. And areas which are
4 untreatable because of residual in current -- in future
5 practice, in our company's case, will be reclassified
6 as extensively regenerated to hardwood.

7 Q. And when you use the phrase untreated
8 as distinct from untreatable, what do you mean by the
9 word untreated?

10 A. Well, untreated is an area which is
11 left because of difficulty in -- I am sorry, I just
12 don't understand the context of your question.

13 Q. All right. Mr. Waddell and yourself
14 had a discussion with Ms. Seaborn, and as I was trying
15 to take it down, the various terms were being used:
16 untreatable in the context of Mr. Hynard's exhibit,
17 untreatable in the context of the way the Industry
18 regards it, and then untreated crept into my notes as
19 well.

20 I don't know that I took it down
21 accurately, but when you use the term untreated in the
22 context of your discussion of Table 3 and the
23 interrogatory that was provided in response to a
24 question by Forests for Tomorrow, I am really asking:
25 Does that bear the same meaning as untreatable, or is

1 it different? How did you mean it?

2 A. Well, my -- with reference to Table
3 3, and I would again emphasize this was a function of
4 operations at the time, in the early days of the FMA
5 areas -- some areas were left untreated because of
6 uncertainty on the part of the managers as to whether
7 they would regenerate naturally or not.

8 But it's since been determined through
9 subsequent surveys that they are regenerating
10 adequately on their own, often to hardwoods and mixed
11 woods, and so even though they were untreated for
12 reasons of economics, that they have regenerated
13 adequately on their own in most cases.

14 Q. When you use the term untreated, can
15 it include both treatable and untreatable areas?

16 A. Yes, it can.

17 MADAM CHAIR: Excuse me, Mr. Nicks. By
18 what means was a determination made that these areas
19 are regenerating?

20 MR. NICKS: Either through ocular surveys
21 or through the fifth-year stocking requirement of the
22 FMA itself for --

23 MADAM CHAIR: So even if they weren't
24 treated initially, they were captured by the fifth-year
25 stocking survey?

1 MR. NICKS: Yes. There is a requirement
2 of the FMAs to perform a fifth-year stocking assessment
3 on all harvested areas whether they be declared as
4 projects or not.

5 As I say, not in all cases were formal
6 fifth-year stocking assessments undertaken on all FMAs,
7 an ocular survey was done in some cases.

8 MS. CRONK: Q. Can cut and wait areas,
9 as you discussed them today, regenerate in your view,
10 Mr. Nicks, to a species with a commercial value even
11 though they may not be a preferred species?

12 MR. NICKS: A. Yes, that's highly
13 probable in our view. If they regenerate to softwood,
14 which I have attempted to illustrate is a possibility
15 on some sites, shallow upland mineral soils, then they
16 of course are immediately regenerated to commercial
17 species by today's definition.

18 The other sites which would be mixed
19 woods, harvested for their softwood component which
20 regenerate to good quality aspen will, let's say in
21 considerable likelihood, be commercially harvestable
22 stands for aspen at some time 60 years in the future
23 the way our Industry is progressing.

24 Q. And looking again then at Exhibit
25 534B, we see in a number of places the reference either

1 to preferred species or to non-preferred species.

2 Dealing with each in turn, let's start
3 with non-preferred species. As used in this exhibit,
4 what do you understand that term to refer to, if you
5 do?

6 A. Well, my understanding is that it
7 refers to species currently not sought after by
8 Industry operating in the area, and once again it's
9 very species specific or area specific.

10 In some parts of the area of the
11 undertaking aspen is sought after. For example, in the
12 Kirkland Lake/Englehart area it's actively being sought
13 for waferboard production; whereas in other parts
14 particularly our own FMAs it is a non-preferred species
15 from a pulpwood standpoint as no one has yet harvested
16 a stick of aspen pulpwood.

17 So that my understanding is that subject
18 to local utilization patterns, that generally refers to
19 hardwoods.

20 Q. And the term preferred species, in
21 the context of this exhibit, what do you understand
22 that term to refer to?

23 A. Again, I understand that to refer to
24 softwoods.

25 Q. And, Mr. Waddell, if I could turn to

1 you for a moment... One of the matters upon which you
2 and Ms. Seaborn had a discussion concerned a proposed
3 term and condition by the Ministry of the Environment,
4 it's been marked as an exhibit - I don't think you need
5 it in front of you - it had to do with the suggestion
6 that effects monitoring be included or be undertaken in
7 the area inspection process by the Ministry of Natural
8 Resources.

9 Do you recall that discussion.

10 MR. WADDELL: A. Yes, I do.

11 Q. All right. Can you tell me, Mr.
12 Waddell, would it be important to you, before endorsing
13 or not endorsing the concept of local effects
14 monitoring, to know what was to be involved in the
15 local effects monitoring that was proposed?

16 A. Yes, that's right, it would.

17 Q. Ms. Seaborn suggested that it meant -
18 this again is just the words as I have got it down, and
19 I am sure she will correct me if I didn't get it
20 accurately - but, as I wrote it down, she suggested
21 that local effects monitoring meant, "any outcome of
22 any silvicultural activity."

23 Would it be important to you, Mr.
24 Waddell, to know what kinds of observations were being
25 thought of when local effects monitoring was being

1 suggested?

2 A. Yes.

3 Q. Do you, with reference to draft term
4 and condition 16 proposed by the Ministry of the
5 Environment, have any understanding as to what is
6 encompassed by the reference to effects monitoring in
7 that draft condition?

8 If you do, please tell me what your
9 understanding is; and, if you do not, please indicate
10 that?

11 A. I probably do not have too good an
12 understanding. I may have been confusing it with
13 effectiveness monitoring when Ms. Seaborn said the
14 results more or less that your silvicultural activities
15 will have. I interpreted that, now that I think back,
16 as meaning the effectiveness, how effective have
17 certain silvicultural prescriptions been.

18 Q. One of the other matters in the same
19 discussion that Ms. Seaborn raised with you was the
20 issue of free to grow, and it was your evidence that
21 ultimately free to grow -- I am sorry, that free to
22 grow is ultimately the measure of success for renewal
23 activities.

24 Do I recall that portion of your evidence
25 to Ms. Seaborn correctly?

1 A. Right.

2 Q. - When choosing -- I would like to
3 direct my question to you, as she did, in the context
4 of what triggers a retreatment obligation by the
5 Industry. So if I could put it in that context for
6 you.

7 When choosing a measure against which a
8 retreatment obligation is to be gauged, based on your
9 experience as a professional forester, would it be
10 important that that assessment as to whether
11 retreatment is required take place earlier or later in
12 the course of the development of regenerating stands?

13 A. I have to ask you to run that one by
14 me again, please?

15 Q. All right.

16 A. I am not sure, earlier than later
17 than what?

18 Q. All right. Let me perhaps come at it
19 this way. How long does it take, for example let's
20 take black spruce, to reach free to grow if regenerated
21 naturally?

22 A. Well, Mr. Gemmell is our black spruce
23 expert, but I would gauge a minimum of 10 years and
24 possibly even as much as 15.

25 Q. Mr. Gemmell, do you agree with that?

1 MR. GEMMELL: A. And even more, yes.

2 Q. All right. And if planted, how long
3 does it take black spruce on average to reach free to
4 grow?

5 A. It could be six to 10 years.

6 Q. Sorry, I didn't hear you.

7 A. Six to 10 years, more like 10.

8 Q. All right. And looking then at
9 timing for determining whether the Industry has a
10 retreatment obligation, if you were to do it on the
11 basis of free to grow with respect to black spruce,
12 would that be an earlier or later determination than
13 had you used fifth-year stocking?

14 MR. WADDELL: A. Thank you. I
15 understand the question now. It would definitely be a
16 later time period, in the sense that we are now
17 committed to fifth-year assessments and probably the
18 only species -- well, even jack pine is not always free
19 to grow by age five, so that quite often jack pine is
20 age seven to eight and spruce is, white or black, is
21 invariably more than five years.

22 Q. Well, from a silvicultural
23 perspective, when you are trying to determine if an
24 area needs retreatment from a silvicultural
25 perspective, is it better to know that as soon as you

1 can or later in the development of emerging stands?

2 A. I think the fifth-year period is
3 about the right time to gauge whether you have to
4 retreat in a legal obligation.

5 We may decide to retreat earlier than the
6 fifth year in some situations. If it's very obvious,
7 for example, that you do have a failure in year two or
8 three, you are not going to wait until year five when
9 your legal obligation kicks in.

10 Q. If you wait for free to grow
11 assessment, is it possible that with some species the
12 determination to retreat could be too late?

13 A. Yes, it's quite possible that in
14 terms of too late, you would have to go back with very
15 expensive site preparation and re-site prepare the
16 area; whereas if you did it in year four or five, that
17 might not be necessary.

18 Q. Thank you.

19 Mr. Ferguson. I looked at the name, it
20 said Mr. Murray, and I went: That's wrong.

21 Mr. Ferguson, one of the matters that Ms.
22 Seaborn explored with you had to do with Appendix 1
23 being the silvicultural prescriptions to your case
24 study. And you were asked a series of questions
25 earlier this morning regarding those prescriptions and,

1 in particular, regarding the absence in the table of
2 what, as I wrote it down, Ms. Seaborn described as any
3 clear expression of a link between harvesting and
4 renewal.

5 Do you recall that discussion.

6 MR. FERGUSON: A. Yes, I do.

7 Q. You indicated, as I wrote it down,
8 that that was so with respect to the groundrules that
9 you were looking at this morning, but that, again as I
10 wrote it down,

11 "The ones now under negotiation do
12 contain further details."

13 And Ms. Seaborn said she would come to
14 those, and no doubt through inadvertence, I don't
15 recall that happening.

16 So could you indicate please with respect
17 to the ones; that is the groundrules, the silvicultural
18 prescriptions now under negotiation, what types of
19 things are further particularized in the new
20 prescriptions, what subject matters is it that are
21 receiving more detail?

22 A. It has been a couple of months since
23 I have been involved with the groundrules and I will
24 just try to recall.

25 The groundrules for the 90-95 period are

1 being negotiated at the present time, they are not
2 finalized; whereas in the past there has been no
3 identification of the harvest system in the
4 groundrules, if I remember correctly there is reference
5 to harvest systems in the new groundrules, that being
6 tree-length, full-tree.

7 I believe, again if my memory serves me
8 correctly, that we are not limited to one particular
9 harvest method in a particular site, there are options
10 within harvest methods as well as the renewal
11 prescriptions.

12 Q. And when you referred to the
13 groundrules, were you referring to the groundrules at
14 large in the context of the evidence you just gave, or
15 to Table 1?

16 A. Table 1.

17 Q. And, Mr. Waddell, with respect to
18 your evidence concerning the contents of the FMA for
19 your company for 1990-1995, have the groundrules been
20 finalized?

21 MR. WADDELL: A. I wouldn't say they
22 have been finalized, we haven't got final approval from
23 MNR yet.

24 Q. Now, Mr. Ferguson, with respect to
25 the groundrules - again I am using the wrong term -

1 Table 1, the silvicultural prescriptions set out to the
2 E.B. Eddy case study, case study 4B, Ms. Seaborn this
3 morning put, as I understood it, a hypothetical
4 question to you; namely, she suggested through a series
5 of questions that if stocking was to 40 per cent jack
6 pine and 60 per cent aspen that could, in a number of
7 circumstances, lead to a change of the working group
8 from jack pine to the poplar working group.

9 Do you recall that discussion?

10 MR. FERGUSON: A. Yes, I do.

11 Q. And you indicated, as I wrote down
12 your replies, that it would depend on the dominance of
13 the aspen at the time of the free to grow assessment.
14 Did I understand that correctly?

15 A. That's correct.

16 Q. All right. My first question to you
17 is this: What steps can be taken, if any, by an
18 attentive timber manager to avoid that kind of change
19 in working group?

20 A. Well, there are a number of steps as
21 we outline in our case study to preventing the
22 re-emergence of aspen, and what we have found to be
23 most effective is the heavy windrowing approach
24 followed by tending as required, or more recently
25 chemical site preparation in the year following

1 mechanical site preparation to prevent resprouting in
2 the first place.

3 So a reasonably aggressive site
4 preparation program in itself goes a long way to
5 preventing the re-emergence of aspen. If that should
6 be only partly successful, then tending is absolutely
7 necessary to ensure that the jack pine is not overtaken
8 by aspen and that aspen forms the next working group.

9 Q. Well, my second question is this: If
10 those steps are taken, how probable is it, in your
11 view, that that kind of change of working group would
12 occur?

13 A. In my experience the probability is
14 extremely low. As we pointed out, there always will be
15 pockets of aspen principally along windrows or on the
16 edges of cuts, but not a sufficient area such that the
17 working group of the entire project or treated area
18 would be declared as poplar; I am almost certain it
19 would be declared jack pine.

20 Q. And with respect to the Dixon Report,
21 page 132 of MNR's Panel 4 - and again I don't think you
22 need go to it, but if you wish it, please, indicate
23 that to me, that you would like to see it - with
24 respect to your response and discussion with Ms.
25 Seaborn on that report, you had indicated in your

1 evidence, or at least you made certain observations
2 about the level of tending activities that have been
3 undertaken since the time of the Dixon Report.

4 Can you tell me, first, specific to the
5 table to which Ms. Seaborn drew your attention, what
6 time frame does that table cover?

7 A. It covers projects that were assessed
8 in the period 1968 -- I am sorry, projects established
9 in the period 1968 to 1973 and my understanding from
10 the text of the MNR's evidence is that the year of
11 assessment which is summarized in the report is only
12 1973, it's my understanding.

13 Q. And to be fair, let's deal with the
14 whole period 1968 to 1973. Are you in a position to
15 offer the Board any opinion as to the comparative level
16 of site preparation undertaken by the Industry under
17 the FMA program compared to the level that was
18 undertaken in the period 1968 to 1973, or do you know?

19 A. Well, some indication of that can
20 perhaps be found in the excerpt of the Reed Report
21 initially which would provide some indication of the
22 level of site preparation in Ontario generally, I think
23 around 32,000 hectares is the figure.

24 Yes, we see -

25 Q. I am sorry, where are you, Mr.

1 Ferguson?

2 A. Page 60 of Panel 8.

3 Q. I'm sorry, page 16?

4 A. 60.

5 Q. Page 60. Thank you.

6 A. And specific to the time period
7 1968-73, about two thirds of the way down the page, if
8 you look under the columns for area treated 1972 and
9 1973 we see that...

10 Now, is your question in relation to
11 herbicide application only, tending only?

12 Q. No, what I was really asking --

13 A. Site preparation of all kinds?

14 Q. You had given Ms. Seaborn an
15 indication as to the level of tending generally that
16 was undertaken today--

17 A. Right.

18 Q. --compared to then. I am asking for
19 the same thing, if you are in a position to do it, with
20 respect to site preparation. Do you know how that has
21 changed, if at all, in the 1980s compared to the period
22 1968 to 1973?

23 A. Well, again, we see a figure for site
24 preparation in '72 and '73 province-wide on Crown lands
25 of about 23,400 hectares; whereas under the FMA program

1 alone from Figure 4 on page 63 of the Panel 8 witness
2 statement we note that by 1981 the collective amount of
3 site preparation in the province was at 55,000 hectares
4 per year, and the sum of MNR and Industry activities
5 have risen to about 110,000 hectares by 1987, and of
6 that 110,000 roughly half was done on FMAs.

7 So from 23,400 in 72/73, to approximately
8 55,000 hectares on FMA areas alone between '81 and
9 '87 -- or, I'm sorry, in 1987 indicates to me a
10 doubling on a much smaller land base than was
11 considered in the Reed Report.

12 Q. Thank you. Mr. Gemmell, Ms. Seaborn
13 asked you today, again in a series of questions with
14 respect to the silvicultural prescriptions accompanying
15 your case study, case study 4D, she asked if there was
16 more detail contained in the silvicultural
17 prescriptions regarding advance growth. She suggested
18 that that would not limit your flexibility regarding
19 treatment type.

20 Your response, as I wrote it down, was
21 that if that were required it would be acceptable.
22 First, do I have that generally correct? I don't
23 purport to have every word down, but is that generally
24 correct?

25 MR. GEMMELL: A. Yes, that is generally

1 correct.

2 Q. Would that increase in the level of
3 - detail concerning advance growth in the silvicultural
4 prescriptions be acceptable to you regardless of the
5 level of detail proposed for insertion in the table?

6 A. No. I think one would have to know
7 how much detail is required to be inserted and what
8 standard would have to be set.

9 Q. Apart from providing detail for
10 informational purposes, is there a type or a threshold
11 level of detail that you would regard as being
12 inhibiting with respect to the flexibility of
13 decision-making? If there isn't, please so indicate;
14 and, if there is, please indicate what that is.

15 Can you reach a point where it does
16 interfere with your flexibility?

17 A. Yes, it's -- actually it's a very
18 difficult thing to say what would be required. It
19 could be established, some standards, but it's very
20 difficult to establish at this time without looking at
21 it in more detail.

22 Q. Could one or more standards -- this
23 is a general matter, could one or more standards be
24 developed dealing with advance growth that apply on all
25 lowland black spruce sites, for example?

1 A. Could one or more standards...?

2 Q. Could you develop a standard that
3 applied with equal appropriateness to all lowland
4 sites?

5 A. I think it would be very difficult to
6 apply one standard, it's very site-specific.

7 Q. Mr. Squires, with respect to a number
8 of the questions put by Ms. Swenarchuk, could I ask you
9 to go to Appendix B of the statement of evidence.

10 This of course is the appendix dealing
11 with your evidence regarding the stocking standards
12 under the FMA program and the survey work that was done
13 concerning five sample plots to discuss stocking.

14 You told Ms. Swenarchuk that plots 1 and
15 2 -- plot 1 is discussed at (iv) and plot No. 2 is
16 discussed at page (vi).

17 You told Ms. Swenarchuk that those two
18 plots were not field plots, but rather had been laid
19 out in agricultural fields. Do you recall that?

20 MR. SQUIRES: A. Yes, I do.

21 Q. All right. Was plot 3 a field plot?

22 A. Plot 3 was an operational plantation
23 out in the field.

24 Q. Was it laid out in an agricultural
25 field?

1 A. It was laid out in the area of our
2 case study which was formally at the time of renewal an
3 NSR condition that had been harvested in 1974-5 and
4 again in 1982, and then had been site prepared --
5 chemically site prepared and had two mechanical site
6 preparations.

7 Q. With respect to plots 1 and 2,
8 generally speaking, were the soil types and the
9 climatological conditions which apply to plots 1 and 2
10 similar or dissimilar to those found in the Spruce
11 River FMA area?

12 A. The soil conditions were probably a
13 bit -- I would say the moisture regime at the Wolf
14 River location may have been slightly more moist, but
15 only slightly, the soil had more stone content but
16 essentially the texture I believe was somewhat similar
17 at the Thunder Bay nursery location and the field
18 plantation on the Wolf River.

19 Q. Thank you. Ms. Swenarchuk also
20 addressed a number of questions, Mr. Gemmell, to you
21 and to Mr. Waddell concerning the issue of stock
22 shortages. There were a number of questions put to you
23 as well by Mr. Freidin concerning this matter.

24 Perhaps, Mr. Gemmell, I could deal with
25 you first. You were asked whether in your areas there

1 have been instances where the company would have
2 planted more, this is as I wrote it down, whether there
3 have been instances where the company would have
4 planted more if stock had been available. You
5 indicated, as I wrote it down, that your company was
6 pretty balanced, that it was very close to what you
7 wanted is what you were doing.

8 Do you know, Mr. Gemmell, what the
9 situation has been on other FMAs apart from those
10 represented by your fellow panel members? Do you know
11 what their experience has been with respect to stock
12 shortages?

13 MR. GEMMELL: A. I don't know the
14 details, but I think there has been an indication that
15 some areas are short of stock.

16 Q. Do you know, Mr. Gemmell, what the
17 situation has been on Crown management units in the
18 last several years with respect to stock shortages?

19 A. Again, I am not -- I don't know
20 factually, I just -- my understanding is there is a
21 certain amount of shortage of stock.

22 Q. Mr. Waddell, perhaps I should come at
23 that as well to you, because similar questions were put
24 to you.

25 Do you know -- leaving aside your own

1 company, do you know what the situation has been to
2 date on other FMA areas apart from those represented by
3 your colleagues on this panel with respect to stock
4 shortages?

5 MR. WADDELL: A. I know of at least one
6 other FMA who had advised me that they have been
7 shorted over the last, I would say three years, on what
8 they would like to plant and what they have been able
9 to get. I have no knowledge of what the situation is
10 in the Crown management units.

11 Q. From your evidence with Mr. Freidin
12 and with Ms. Swenarchuk, were we to infer or were we
13 not to infer that the cap is a problem across the area
14 of the undertaking, insofar as the Industry is
15 concerned?

16 A. Well, it's a problem across the area
17 of the undertaking, but it is not a uniform problem in
18 the sense that all FMA companies have not been shorted;
19 some have and some have not and, therefore, it's my
20 understanding that it is a general problem across the
21 area of the undertaking.

22 Q. Could I ask you to go to the Task
23 Force Report, please, Mr. Waddell, that's Exhibit 940.

24 MS. CRONK: Exhibit 940, Madam Chair. I
25 have another copy, Madam Chair, if it will assist.

1 (handed)

2 MADAM CHAIR: Thank you very much.

3 MS. CRONK: Mr. Martel, do you need a
4 copy?

5 MADAM CHAIR: Oh, here we have found it,
6 Ms. Cronk, thank you.

7 MS. CRONK: Q. Mr. Waddell, could I ask
8 you to go to page 12, please.

9 MR. WADDELL: A. I have it.

10 Q. Could I direct your attention to the
11 section at the bottom of the page dealing with the
12 nursery stock cap.

13 You will recall that Ms. Swenarchuk
14 directed your attention to a number of portions of this
15 report, and on this page she directed your attention to
16 the last paragraph on the page.

17 I would ask you to look at the one
18 immediately above it entitled Problem, and if you could
19 take a moment, could you just read that to yourself and
20 then I have a question.

21 A. Yes, I have read it.

22 Q. Insofar as you are aware, Mr.
23 Waddell, was that statement contained in that
24 subparagraph based on the actual experience of timber
25 managers that dealt with the Task Force, or was it

1 perceived as a potential problem only, or do you know?

2 A. I would have to ask you to ask me
3 that question again, please?

4 Q. All right. Directing your attention
5 to the subparagraph that I have asked you to read,
6 beginning, "problem...", my question is this:

7 Insofar as you are aware, given the role
8 that you had on the Task Force, was that statement
9 based on the actual experience of timber managers or
10 was it perceived as a potential problem only, or do you
11 know?

12 A. Again, I will have to say that even
13 though I was on the Task Force I cannot remember
14 specifically Crown management unit managers listing
15 this as a major problem. They may have and they
16 possibly did or I don't think it would be in there, but
17 if you are asking me, I can't say with any degree of
18 assurance that I can remember Crown management unit
19 managers indicating that they had a problem with the
20 cap.

21 Q. That's fine. And with respect to
22 Industry timber managers?

23 A. Yes?

24 Q. The question was: Insofar as you are
25 aware, was that statement based on the actual

1 experience of managers, in this context now Industry
2 managers, or was it perceived as a potential problem
3 only?

4 A. It was based on both some Industry
5 managers perceived it as a potential problem and others
6 indicated that it was an existing problem, remembering
7 that we interviewed them in 1987.

8 Q. I understand. Thank you.

9 MR. FERGUSON: A. Ms. Cronk, may I just
10 clarify a point on that?

11 Q. Yes, Mr. Ferguson.

12 A. Mr. Freidin asked this morning about
13 stock shortages and I must confess I was thinking
14 primarily of the FMA English River which I am directly
15 responsible for.

16 My understanding, although I don't have
17 specific details, that Canadian Pacific has experienced
18 stock shortages in some of the FMAs administrative
19 region of Thunder Bay within the northcentral region.
20 As I say, I am not aware of the specifics on that and I
21 am not sure what the extent of those shortages were.

22 Q. Thank you, Mr. Ferguson.

23 Still dealing with this portion of the
24 FMA Task Force Report, Mr. Waddell, could I ask you to
25 turn over to the next page, please.

1 Again Ms. Swenarchuk read into the record
2 and then questioned you concerning the paragraph at the
3 bottom of page 12. I would ask you to read the top two
4 pararaphs on page 13 to yourself. Just take a moment,
5 if you would, please.

6 A. Yes.

7 Q. Are those observations and is that
8 recommendation consistent or inconsistent with the
9 Industry's position regarding the nursery stock cap as
10 outlined to this Board?

11 A. I believe it to be consistent.

12 Q. Thank you.

13 Mr. Nicks, if I could come back to you,
14 please, and this has to do with questions put to you by
15 Mr. Hanna and again by Mr. Freidin this morning - I
16 think it was by Mr. Hanna, but it might have been by
17 Ms. Swenarchuk - certainly by Mr. Freidin this morning,
18 and it has to do with the evidence that you have given
19 concerning the purpose and nature of tree improvement
20 programs.

21 Mr. Freidin asked you some questions in
22 particular about that this morning. I would like to
23 put a question to you dealing with the aspects of that
24 relating to rotation age of various species in the area
25 of the undertaking.

1 And looking at it from that perspective,
2 that is tree improvement programs and the use of
3 genetically improved stock, what improvements to
4 rotation age, if any, can be expected through the use
5 of genetically improved stock?

6 MR. NICKS: A. Well, once again, one
7 would have to define the nature of the genetic
8 improvement. If it's an improvement of form only and
9 not growth rate, or if the emphasis is on form and not
10 necessarily on growth rate, then the rotation I would
11 venture would not be shortened appreciably.

12 And, as I indicated this morning, the
13 emphasis in the case of jack pine is principally in the
14 first generation on improving form, so I wouldn't
15 expect significant reductions in rotation length from
16 tree improvement alone. I think rotations will decline
17 as much from good silviculture and the regulated
18 spacing as they will from tree improvement in the first
19 generation. So I would suggest not more than a five
20 per cent reduction in rotation length, that is my best
21 estimate at this time.

22 In the case of black spruce, the same
23 concepts apply, except that the selection system - not
24 to be confused with hardwood management of course - but
25 the selection pressure in selecting plus trees and in

1 roguing family tests and seed orchards is applied on
2 the basis of growth rate principally. So in the case
3 of black spruce, I would expect a relatively more
4 significant reduction in rotation length through tree
5 improvement, perhaps in the order of 10 per cent, as
6 much as.

7 Q. And -in your mind, based on your
8 experience as a silviculturalist, are the effects of
9 those types of tree improvement programs and the
10 spacing that you spoke of with respect to impact on
11 rotation age, are they discreet effects or are they
12 cumulative in terms of effects on rotation age?

13 A. Okay. Are you asking if tree
14 improvement plus good silviculture results in a
15 synergistic or cumulative effect?

16 Q. It's a better question, yes.

17 A. Okay. The answer to that is that
18 tree improvement really is the combination of breeding
19 trees and intensive silviculture practice, and so when
20 I say tree improvement or the definition of tree
21 improvement is really both, and certainly there is a
22 synergistic combined effect, yes.

23 It makes no sense to practice genetic
24 improvement without intensive plantation management
25 and, similarly, one falls short of one's potential -

1 this is a forest manager - if one practices intensive
2 silviculture with unimproved stock. So the two go hand
3 in hand.

4 Q. Could I ask you to go, please, to
5 Exhibit 68. Perhaps you could put one -- do you have a
6 copy, Mr. Waddell or Mr. Nicks? Exhibit 68 is the
7 first FMA review to which Ms. Swenarchuk referred you.

8 MR. WADDELL: A. I have it.

9 Q. And you recall Mr. Nicks and Mr.
10 Waddell that Ms. Swenarchuk took you to page 68 of this
11 exhibit and to Table 3 that appears on the bottom half
12 of that page and she put a series of questions to you
13 regarding the amount of the area relating to the
14 upper -- the E.B. Eddy Forest Products Limited Upper
15 Spanish Forest FMA and the amount of that FMA area that
16 had been regenerated.

17 And the suggestion was made that the
18 total regenerated area was 4,418 hectares. Do you
19 recall that.

20 A. Yes, I do.

21 Q. And you were then asked by way of a
22 requested undertaking to provide information concerning
23 the regeneration on the same area undertaken by the
24 Ministry of Natural Resources. Do you recall that?

25 A. Yes, I do.

1 Q. All right. Could you go over to page
2 72, please, four pages later to Table 6.

3 A. Yes.

4 Q. Does this table deal with the same
5 FMA?

6 A. Yes, it does.

7 Q. Is it relevant to the same time
8 period as was Table 3?

9 A. Yes.

10 Q. Does it assist you in advising the
11 Board as to the extent of regeneration efforts on this
12 FMA undertaken by the MNR during the same time period;
13 that is, 1980 to 1985?

14 A. Yes. Table 6 includes the Ministry
15 phase-in as well as the company effort combined total.

16 Q. What is the combined total of the
17 extent of the area regenerated, the regeneration total?

18 A. It would be 10,572 hectares.

19 Q. And that is compared to a total
20 harvest area of what?

21 A. 11,460 hectares.

22 Q. And of the 10,572 hectares, can you
23 advise the Board as to what proportion was attributed
24 to MNR phase-in work as opposed to Industry renewal
25 work?

1 A. That would be the difference between
2 10,572 and 4,418 which is precisely --

3 Q. Sorry, perhaps you could provide it
4 in terms of the number of hectares?

5 A. Yes. Just one second, please. 6,154
6 hectares was what the Ministry contributed to the
7 overall portion of 10,572 hectares.

8 Q. Thank you. With respect to the
9 balance then, that is the portion not regenerated by
10 the Industry and not regenerated by the Ministry at the
11 time of this review, are you in a position to help as
12 to the proportion of that that would be attributable to
13 roads, or do you know?

14 A. I do not know.

15 Q. Mr. Nicks, do you?

16 MR. NICKS: A. No, I'm afraid I don't
17 have a figure.

18 Q. All right. And could I ask you then
19 to go, please, to page 81 of this exhibit and I direct
20 your attention to paragraph 1. There are two paragraphs
21 comprising that paragraph, and I am directing your
22 attention to the paragraph beginning with the word,
23 "currently".

24 Do you see that.

25 MR. WADDELL: A. Yes, I do.

1 Q. It reads:

2 "Currently the company treats 100 per
3 cent of the cut-over unless both parties
4 agree that an area is untreatable."

5 Was that the case then, Mr. Waddell, and
6 is that the case now?

7 A. It was the case then, it is not the
8 case now; now being in the next five-year period
9 because we are on to a next -- all right, I will have
10 to back off that because extensive treatment is still
11 treatment.

12 We did not have extensive/intensive
13 treatment during this five-year period, 1980-85, so we
14 endeavored to treat all cut-over except for roads. For
15 1990 that is still the case, we are just calling it
16 extensive and intensive treatment.

17 Q. All right. And could I ask you to go
18 to page 71, please, of this document.

19 A. Yes.

20 Q. And I direct your attention to Table
21 5, and starting first -- which appears at the top of
22 the page, and starting first with the Upper Spanish
23 Forest, could you indicate to the Board, please, what
24 the company's NSR treatment obligation was as at the
25 date of this report and what the extent was of NSR

1 areas actually treated on the Upper Spanish Forest as
2 at the date of this review?

3 A. Yes. In the Upper Spanish Forest we
4 had an obligation to treat 695 hectares in the first
5 five years, we treated 5,981; on the Lower Spanish, our
6 obligation was 608 hectares to treat and we treated
7 6,150.

8 Q. Thank you. Mr. Waddell, dealing next
9 with the issue of the level of management on Crown
10 management units, you were cross-examined on this issue
11 both by Ms. Swenarchuk and by Mr. Freidin.

12 You told Ms. Swenarchuk at one point in
13 your evidence that until recently the Crown management
14 units were not part of the same planning system. Can
15 you assist the Board as to when they became part of the
16 same planning system, approximately?

17 A. I believe the past two years - maybe
18 someone on the panel can help with that - I believe
19 it's in the past two years when the new Timber
20 Management Planning Manual came into effect. Whether
21 that's '87 or '88, I am not certain.

22 Q. And when you told Ms. Swenarchuk that
23 the Industry was concerned because it didn't know the
24 level at which Crown management units were being
25 managed, were you referring to the time period before

1 the Timber Management Planning Manual came into play
2 and brought under it Crown management units, or were
3 you referring to the time period after that?

4 A. Well, I think I was referring to no
5 specific time period, it was a statement that we are
6 concerned because we are unsure as to the level that
7 Crown management units are being managed.

8 Then Mr. Freidin of course took me
9 through in his cross-examination and indicated that the
10 information largely was available now in many of the
11 Crown management units if we chose to look at the
12 timber management plan.

13 Q. And prior to the Crown management
14 units coming under the Timber Management Planning
15 Manual process, was the same type and level of
16 information available to the Industry concerning
17 renewal treatments on crown Management units as is
18 available today?

19 A. It may have been, it certainly wasn't
20 in the same format that it will be in the new plans, I
21 believe they were on 10-year operating plans.

22 Q. Thank you. Then, Mr. Nicks, if I
23 could turn again to you, please. Mr. Hanna asked the
24 panel a number of questions regarding soil compaction,
25 and I think some of those were directed to you and some

1 to Mr. Waddell, and a series of questions regarding the
2 measures by which any public concern regarding soil
3 compaction, if any, might be addressed.

4 Mr. Nicks, in your evidence early this
5 morning you mentioned certain soil pit tests that had
6 been conducted on the E.B. Eddy case study area. Can
7 you help me first with this: Do professional foresters
8 receive formal training as part of their forestry
9 degree in forest soils?

10 MR. NICKS: A. Yes, they do.

11 Q. Apart from those courses, are forest
12 soils courses taught by the Ministry of Natural
13 Resources as well?

14 A. They have been in the past mainly
15 connected with the forest ecosystem classification
16 program which the Board heard evidence of yesterday I
17 believe and last week. The amount of detail varies
18 from region to region depending on the maturity of the
19 FEC programs.

20 Q. Apart from any formal courses
21 available to foresters regarding forest soils, in your
22 experience, would you regard it as possible that in
23 carrying out operations in the area of the undertaking,
24 actually in the field, that foresters gain an
25 understanding of soils characteristics? Do you think

1 that is in fact what occurs over time in the field?

2 A. I certainly do, yes.

3 Q. Mr. Gemmell, do you agree with that?

4 MR. GEMMELL: A. Yes, I do.

5 Q. In the Clay Belt area in particular,
6 is the issue of soil compaction real, if I can put it
7 that way; are foresters in that area alive to that
8 issue?

9 A. The problem has been real, the
10 process of acquiring different machinery to deal with
11 that problem has been ongoing for 10 years and that's
12 the high flotation equipment which deals with any of
13 those problems that have occurred.

14 Q. Is it an issue with which you as a
15 forester have had to address yourself in the past in
16 carrying on operations in the Clay Belt?

17 A. Yes, I have.

18 Q. Mr. Hanna inquired whether it would
19 be possible to establish maximum soil compaction limits
20 for various site types as a means of setting what he
21 called specific environmental objectives for renewal
22 areas.

23 Given your experience in the Clay Belt
24 area, Mr. Gemmell, would that approach, if applied to
25 the area of the undertaking, in your view be practical?

1 A. I think it would be very onerous and
2 I think we are capable of assessing the situation
3 mainly by the results we can gain from the renewal
4 program; in other words, if we can treat it properly,
5 there is probably no compaction problem.

6 Q. Why would it be - your words were,
7 very onerous?

8 A. To undertake soil compaction testing
9 would be a very onerous task.

10 Q. Mr. Waddell, is the issue of soil
11 compaction, as my word was real - it may be an
12 inadequate word - but is it an issue of the same
13 intensity in the area in which you practice forestry as
14 it is in the Clay Belt area?

15 MR. WADDELL: A. Definitely not.

16 Q. Mr. Squires, is it in your area?

17 MR. SQUIRES: A. Not.

18 Q. Mr. Ferguson?

19 MR. FERGUSON: A. It's never been a
20 concern that I'm aware of in my area.

21 Q. Mr. Murray?

22 MR. MURRAY: A. Not that I'm aware of.

23 Q. Mr. Waddell, could I ask you to go,
24 please, to page 132 of the statement of evidence,
25 that's Section 8.

1 You were asked a number of questions by
2 Mr. Hanna about this section of the Industry's
3 statement of evidence beginning at page 130, and I
4 direct your attention in particular to page 132, part
5 C, dealing with the aquatic environment.

6 Can you help me one way or the other, Mr.
7 Waddell. Does that term and the discussion in point 7
8 and 8 of the aquatic environment extend to aquatic
9 vegetation, or do you now recall?

10 MR. WADDELL: A. Is your question does
11 the aquatic environment include aquatic vegetation?

12 Q. Yes.

13 A. I assume it does although I do not
14 remember specifically discussing that with Mr. Hanna.

15 Q. And then just one or two other final
16 points gentlemen. Thank you, Mr. Waddell.

17 Mr. Nicks, still dealing with the
18 cross-examination by Mr. Hanna, you discussed with him
19 the standards involved in assessing free to grow, and I
20 would ask you to go to the Timber Management Planning
21 Manual, page 198, if you would. Sorry, you no longer
22 have it.

23 MR. NICKS: A. Which version?

24 Q. I would like you to have the current
25 one, which may or may not be the one that I have in my

1 hand. Table C.1, sorry.

2 A. I would like to point out we have
3 current versions that the management foresters use in
4 preparing their plans.

5 Q. Page 198, Table C.1.

6 A. Yes.

7 Q. All right. And you referred,
8 together with Mr. Waddell, to the contents of this
9 table when you responded to Mr. Hanna concerning the
10 types of matters taken into account by Industry timber
11 managers in assessing free to grow. Do you recall
12 that?

13 A. Yes, I do.

14 Q. Can you help me as to when the Timber
15 Management Planning Manual and, in particular, this
16 table became effective, or do you know?

17 A. As I said, I am not a planning
18 specialist and I recall the earlier publication date of
19 this manual is 1986, and perhaps Mr. Waddell could
20 recall when the free to grow standards were developed.
21 I am sure it was some time before that.

22 MR. WADDELL: A. The free to grow
23 standards, Ms. Cronk, were contained in the original
24 TMP Manual that came out in 1980 and under which the
25 original FMAs were established.

1 Q. All right.

2 A. So there has been free to grow
3 standards since day one.

4 Q. And with respect to the manual, is it
5 your understanding as well that this particular manual
6 became effective in or about 1986?

7 A. Yes, it did.

8 Q. And I am showing you as well, Mr.
9 Nicks and Mr. Waddell, a copy of an extract from MNR
10 Exhibit 915, which is MNR Panel 16 on monitoring.

11 MS. CRONK: And it's a copy of page 581,
12 Madam Chair, dealing with regeneration effectiveness
13 and free to grow declaration. Perhaps it would be
14 easier, Madam Chair, if you had your copy as well.
15 (handed)

16 Q. Mr. Nicks, could you look at the
17 bottom two paragraphs of this document, please, first
18 under Definition, and could you take a moment and
19 review it and tell me please if you agree with that
20 definition of free to grow?

21 MR. NICKS: A. Yes, I would agree with
22 that definition.

23 Q. And dealing with the bottom
24 paragraph, are those criteria also taken into account
25 by Industry managers when they are considering free to

1 grow status of various stands?

2 A. When they are considering submitting
3 stands for free to grow assessment to the MNR?

4 Q. Yes, I am sorry.

5 A. Yes. As the Board may recall the
6 process now is for the company to request free to grow
7 surveys of the Ministry and that's on the basis of our
8 fifth-year stocking assessment results, but we also
9 record -- where we also record the heights of the
10 species present at that time too and, by inference of
11 course, the degree of competition based on the height
12 of the hardwood, for example, and so it's a
13 consideration that we go through to avoid making a
14 frivolous request to the MNR for a free to grow survey.

15 Q. And then finally, Mr. Waddell, one
16 question to you if I could on second-year survival
17 data.

18 Mr. Freidin put a number of questions to
19 you, as I recall it, the proposition first that the
20 public wished to know how the regeneration program in
21 the area of the undertaking is doing, and he asked you
22 whether providing survival data, that kind of
23 information to the public would be desirable so long as
24 they were given an explanation of it; that is, how to
25 interpret it, and an explanation regarding the

1 limitations of that type of information.

2 Do you recall that discussion?

3 MR. WADDELL: A. Yes.

4 Q. All right. Leaving aside, Mr.
5 Waddell, the issue of whether it is possible to provide
6 that kind of information in a manner which is
7 intelligible to the public, in your opinion, as a
8 professional forester, would that kind of information
9 be useful in terms obviously of measuring the success
10 of the regeneration program in the area of the
11 undertaking?

12 A. Useful to the public?

13 Q. Yes.

14 A. No.

15 Q. And why is that?

16 A. I believe that the public has to have
17 some method of tracking the success of the plantations
18 because it's Crown money, Crown lands - I certainly
19 believe that - I just don't believe that survival is
20 the best way to do it.

21 I feel that some measure of stocking
22 would be a better way to do it; in other words, if we
23 could agree that, for example, that 40 per cent
24 stocking in year five represents a successful
25 plantation, then we would report to the public how many

1 hectares by working group each year have attained that
2 level of stocking and, therefore, have reached a
3 category that they can be classified as successfully
4 regenerated.

5 And we don't even necessarily have to use
6 the word stocking or the per cent if the people
7 involved can agree in advance that 40 per cent
8 constitutes a successful level of regeneration, then we
9 would report to the public on annual basis that "x"
10 number of hectares by working group have been
11 successfully regenerated by management unit, and I
12 believe that that would be a much more meaningful
13 reporting than would survival which has so many
14 inadequacies and weaknesses and things that are
15 difficult to understand to the public.

16 Q. Gentlemen, do any of you disagree
17 with the evidence just given by Mr. Waddell?

18 MR. NICKS: A. I would like to add one
19 further comment. I think the concern of the public is
20 of course, are the forests regenerated, they want to
21 know what per cent of the land base that is harvested
22 is coming back; that is at least the way the question
23 gets posed to me.

24 I think to follow up on what Mr. Waddell
25 said, if we can assure them that "x" per cent,

1 hopefully 95 per cent, of the harvested area has been
2 regenerated to an adequate level to ensure another
3 commercial harvest or, from a public point of view,
4 restoration of forest cover, that would be a meaningful
5 statistics for them; they can know that 95 per cent of
6 the harvested land base has been restored.

7 And it's possible to derive those figures
8 from, as Mr. Waddell said, fifth-year stocking
9 assessment results or free to grow surveys contrasted
10 with the level of harvest on those same areas five
11 years previously.

12 Q. And when you mention 95 per cent, do
13 you place any particular emphasis on that percentage?

14 A. No. I would hope that it's a
15 reasonable expectation that through natural
16 regeneration and artificial a very high level of
17 restocking will occur over most of the area of the
18 undertaking, save and except those areas which are
19 non-treatable and non-regenerable, which I would hold
20 to be at a very low percentage.

21 Q. Thank you, Mr. Nicks.

22 Gentlemen, do any of you disagree with
23 the remarks or the evidence just given by Mr. Waddell
24 and Mr. Nicks?

25 MR. SQUIRES: A. I agree wholeheartedly

1 - with what they said.

2 WITNESS PANEL: (Collectively nodding
3 affirmatively)

4 Q. Thank you very much. Those are --

5 MS. CRONK: If I may have one moment,
6 Madam Chair.

7 Those are all my questions, Madam Chair,
8 Mr. Martel. Thank you very much.

9 MADAM CHAIR: Thank you, Ms. Cronk.

10 And the Board thanks you, panel members,
11 very much. Thank you, you are excused.

12 I guess your job is done, you go back to
13 work now.

14 MR. WADDELL: Not tonight.

15 MADAM CHAIR: Thank you, very much.

16 ---Whereupon the hearing adjourned at 4:55 p.m., to be
17 reconvened on Wednesday, May 16th, 1990, at 8:30
a.m.

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